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2988	96357753 (5975, 5978)	Novel Protein sim. GBank gij4679028igpAAAD27002.1] - (AF077207) HSPC021 [Homo sapiens]		UNCLASSIFIED	284488, 65274572, 22278995, 22278998, 22278997, 22278999, 264092, 264094, 264259, 60432049, 29331824, 29331826, 60432289, 35696052, 29331828, 264107, 264905, 264907, 264908, 66712502, 264828, 264909, 56182435, 265008, 265007, 265008, 60170831, 60432229, 264593, 60433356, 264757, 60433438, 21906754, 265010, 265011, 87168559, 265017, 265018, 264682, 264448, 264369, 264288, 264685, 52644229, 21906765, 21906767, 21906769, 35695917, 265021, 265022, 52844150, 264690, 33657023, 65274620, 263967, 33657109, 27486262, 18108370, 18108372, 18108374, 55810784, 65274791, 35895855, 264635, 264636, 264637, 263981, 264638, 58182323, 83373044, 60432113, 22279000, 264563, 264584, 264585, 264586, 264587, 22278996, 22278997, 264905, 264511, 60170831, 264593, 265019, 21906765, 21906767, 21906768, 18108374, 265007, 264512, 18108351, 264288, 264689, 265020, 264691, 33657023, 33657109
2989	91225118 (5977, 5978)	Novel Protein sim. GBank gij113671ispip23964/ALUF_HUMAN - IIII ALU CLASS F WARNING ENTRY IIII	kinase		264553
2990	87330444 (5979, 5980)	Novel Protein sim. GBank gij2829836ispip97348/RHOD_MOUSE - RHO-RELATED GTP-BINDING PROTEIN RHOD	Contains protein domain (PF00071) - Ras family	oncogene	264488, 29331822, 265017, 264761, 21906769, 65274791, 263981, 264565, 22278994, 22278995, 56994075, 22278997, 22278998, 264259, 29331822, 29331824, 29331825, 29331826, 29331827, 29331828, 265006, 265009, 264910, 33109954, 87168474, 87168559, 265018, 265019, 264448, 264288, 21906766, 21906767, 21906768, 21906769, 265021, 265022, 33657023, 264693, 35695855, 83373044, 18108385, 22279000, 264585, 264586, 264905, 264907, 265019, 18108351, 264683
2991	84325361 (5981, 5982)				
2992	85425164 (5983, 5984)				
2993	94325363 (5985, 5986)				
2994	94136634 (5987, 5988)	Novel Protein sim. GBank gij2496548ispipQ50658YU02.MYCTU - HYPOTHETICAL 29.7 KD PROTEIN CY339.02	transport		264488, 29331822, 265017, 264761, 21906769, 65274791, 263981, 264565, 22278994, 22278995, 56994075, 22278997, 22278998, 264259, 29331822, 29331824, 29331825, 29331826, 29331827, 29331828, 265006, 265009, 264910, 33109954, 87168474, 87168559, 265018, 265019, 264448, 264288, 21906766, 21906767, 21906768, 21906769, 265021, 265022, 33657023, 264693, 35695855, 83373044, 18108385, 22279000, 264585, 264586, 264905, 264907, 265019, 18108351, 264683
2995	87491070 (5989, 5990)	Novel Protein sim. GBank gij2734081 (AF000195) - similar to oxysterol-binding proteins [Caenorhabditis elegans]			
2996	91013798 (5991, 5992)	Novel Protein sim. GBank gij2829912 (AC002281) - Similar ATP-dependent RNA Helicase [Arabidopsis thaliana]	Contains protein domain (PF00270) - DEAD/DEAH box helicase	helicase	65274572, 35695856, 264259, 29331824, 35695052, 29146498, 264508, 264907, 265007, 265008, 60433438, 18108348, 265017, 264681, 264683, 264288, 264769, 264769, 264689, 35695917, 60170615, 33657023, 264692, 264634, 264555, 18108381, 18108382, 18108388, 264484

2997	87627440 (5993, 5994)	Novel Protein sim. GBank gll4589652(djlgAA76846.1) - (AB023221) KIAA1004 protein (Homo sapiens)	homeobox	264488, 56182575, 264259, 66714117, 29331826, 35696052, 264508, 264509, 264907, 264908, 265006, 87168474, 265019, 264448, 264682, 264685, 264766, 21908784, 21908766, 21908768, 21908769, 27488281, 18108374, 35698423, 264634, 264635, 264636, 264557, 18108385, 87168518, 52646385, 22278997, 264508, 264808, 18108351, 21908765, 21908767, 18108370, 18108374, 35698423, 264636, 264639
2998	88095381 (5995, 5996)	Novel Protein sim. GBank gll3947589(emb)CAA222521 - (AL034384) cDNA EST yk255b9.3 comes from this gene; cDNA EST yk255b9.5 comes from this gene; cDNA EST EMBL:M75923 comes from this gene [Caenorhabditis elegans]	UNCLASSIFIED	264488, 56182575, 264259, 66714117, 29331826, 35696052, 264508, 264509, 264907, 264908, 265006, 87168474, 265019, 264448, 264682, 264685, 264766, 21908784, 21908766, 21908768, 21908769, 27488281, 18108374, 35698423, 264634, 264635, 264636, 264557, 18108385, 87168518, 52646385, 22278997, 264508, 264808, 18108351, 21908765, 21908767, 18108370, 18108374, 35698423, 264636, 264639
2998	94847055 (5997, 5998)	Novel Protein sim. GBank gll15408(lep)P18835(CC19_CAEEL - CUTICLE COLLAGEN 18	UNCLASSIFIED	56182575, 22278996, 26147620, 29331825, 29146498, 28146499, 264805, 66712502, 265006, 265009, 21906754, 85658542, 18108351, 29146627, 29146629, 60170615, 33657109, 27486262, 18108370, 18108374, 264556, 264557, 264558, 60170394, 18108385, 264563
3000	95099370 (5999, 6000)	Novel Protein sim. GBank gll1163174 (U32575) - similar to yeast Sec6p. Swiss-Prot Accession Number P32844; similar to mammalian B94, Swiss-Prot Accession Number Q03169; Method: conceptual translation supplied by author [Rattus norvegicus]	UNCLASSIFIED	264887, 22278997, 22278999, 264259, 29331822, 29331824, 35696052, 29146498, 264508, 264905, 264906, 264907, 264908, 264908, 264510, 264511, 265006, 265007, 265008, 265009, 264910, 33657402, 264757, 264595, 264596, 264758, 21908754, 265011, 264600, 265017, 265018, 264605, 265019, 264760, 264761, 264762, 264681, 264682, 264764, 264288, 264685, 264766, 264686, 264788, 264789, 21908765, 21908768, 33657023, 264693, 33657109, 33657182, 27486281, 264628, 264629, 18108374, 18108376, 35696423, 35698555, 264630, 264631, 264632, 264634, 264635, 264636, 264637, 264556, 264638, 264639, 60170394, 83373044, 20788451, 22279002, 264563, 264488, 264567
3001	88078454 (6001, 6002)	Novel Protein sim. GBank gll2078470 (AC002073) - Putative gene. Genscan predictions confirmed by EST splicing.; coded for by human cDNAs AA122029 (NID:g1678048), D31562 (NID:g844442), AA158721 (NID:g1733515), R59640 (NID:g8300335) and F13082 (NID:g709111) [Homo sapiens]	calthepsin	18108394, 52646842, 56182575, 29331824, 29331825, 29331827, 264910, 33109954, 52644296, 265017, 265019, 264288, 265020, 265021, 52644150, 264692, 35695763, 55810784, 35698423, 56182323, 18108387, 264563, 264564
3002	87718167 (6003, 6004)	Novel Protein sim. GBank gll3599478 (AF085185) - Myosin-1A [Acanthamoeba castellanii]	UNCLASSIFIED	264488, 29331824, 29331825, 29331826, 29331827, 29331828, 264906, 264510, 265009, 21906754, 264682, 264688, 33657023, 264565

3003	86848078 (6005, 6006)	Novel Protein sim. GBank gll1754989 (U30292) - collagen type XIII alpha-1 chain [Mus musculus]	Contains protein domain (PF01391) - collagen triple helix repeat (20 copies)	264512, 264593, 264564, 264567, 264486
3004	80066876 (6007, 6008)	Novel Protein sim. GBank gll2224629dbj[BAA20802] - (AB002342) KIAA0344 [Homo sapiens]		29331830, 21906769, 264681, 33657109, 263972, 18108385
3005	87794843 (6009, 6010)	Novel Protein sim. GBank gll4680639jg[AAD27719.1]AF13294 - (AF132944) CGI-10 protein [Homo sapiens]	Contains protein domain (PF01360) - oxygenase Monooxygenase	29331822, 29331824, 29331827, 60433438, 265011, 265019, 21906766, 21906767, 21906768, 265020, 33657023, 33657349, 60170394, 22279002, 264567
3006	87422224 (6011, 6012)	Novel Protein sim. GBank gll3930525 (AF064447) - sex-determination protein homolog Fem1a [Mus musculus]	Contains protein domain (PF00023) - MHC Ank repeat	264259, 29331822, 264512, 21906754, 265018, 264687, 21906765, 264691, 264555, 264556, 264558, 18108385
3007	80936005 (6013, 6014)	Novel Protein sim. GBank gll2565062 (U80738) - CAGH1a [Homo sapiens]	Contains protein domain (PF00096) - Zinc finger, C2H2 type	52644507, 52645156, 65274572, 264909, 264512, 265018, 264760, 264448, 264765, 264688, 60170615, 18108374, 20281152, 264636, 52844332
3008	80416249 (6015, 6016)	Novel Protein sim. GBank gll3127193 (AF062389) - kidney-specific protein [Rattus norvegicus]	Contains protein domain (PF00501) - synthase AMP-binding enzyme	264905, 264593, 264768, 264639, 52646842, 56182575, 22278995, 22278996, 264259, 29331825, 29331826, 29331827, 29331828, 35698052, 264508, 264509, 264907, 56182435, 264511, 265007, 264512, 265008, 284757, 284758, 55812038, 284759, 33109954, 21906754, 265010, 265011, 264600, 265017, 265018, 265019, 284760, 18108351, 264288, 264369, 21906764, 21906765, 21906767, 55811957, 265020, 265021, 284691, 18108368, 27466262, 20281149, 18108370, 55811576, 264637, 264556, 284557, 18108381, 264558, 56182323, 264559, 18108385, 18108388, 22279002, 264486
3010	95317217 (6019, 6020)	Novel Protein sim. GBank gll4827370jg[AAD33084.1]AF06797 - (AF067972) DNA cytosine methyltransferase 3 alpha [Homo sapiens]	Contains protein domain (PF01923) - Protein of unknown function	264686, 264687, 21906767, 21906769, 55811957, 22278995, 35695917, 22278996, 22278997, 265020, 265021, 60170615, 264692, 33657023, 29331822, 264693, 18108384, 29331824, 33657109, 60432289, 29331827, 27468281, 29331828, 264508, 264909, 55811576, 35695955, 265008, 264556, 60433438, 83373044, 18108387, 65274727, 60432113, 265017, 22279000, 265019, 264564, 264682, 264764
3011	84323597 (6021, 6022)	Novel Protein sim. GBank gll5052319jg[AAD38501.1]AF11893 - (AF11893) citrin; adult-onset type II citrullinemia protein [Homo sapiens]	Contains protein domain (PF00153) - transport Mitochondrial carrier proteins	35698052, 56182435, 264758, 21906754, 265018, 264760, 264762, 18108351, 264682, 264448, 21906766, 65274620, 18108374, 264482, 284564
3012	87753087 (6023, 6024)		UNCLASSIFIED	263972



3013	91238799 (6025, 6026)	Novel Protein sim. GBank gij3702286 (AC005787) - R33374_1 [Homo sapiens]	Contains protein domain (PF00400) - WD domain, G-beta repeat	transcript factor	264488, 263994, 35696286, 22278997, 264259, 29331824, 60424269, 66714117, 35698052, 284905, 284906, 284907, 284808, 284909, 56182435, 284511, 284512, 284810, 284591, 284592, 284593, 284594, 33657402, 60433438, 264595, 264596, 55812038, 284758, 33109954, 21906754, 265010, 265018, 264604, 264760, 264632, 264683, 264764, 264359, 284288, 284765, 284766, 264686, 284768, 264687, 21906767, 35695917, 265020, 33657023, 264692, 284693, 33657109, 284628, 264629, 55811578, 35698423, 35695855, 284630, 284631, 284632, 284634, 284635, 284636, 264637, 284638, 264639, 83373044, 284593, 264585, 264586, 264587, 264760
3014	78877263 (6027, 6028)	Novel Protein sim. GBank gij3878374[emb]CAA930811 - (Z68879) Similarly to Yeast Chl12p protein (PIR Acc. No. S54453); cDNA EST EMBL:D27950 comes from this gene, cDNA EST EMBL:D27949 comes from this gene; cDNA EST EMBL:D33447 comes from this gene; cDNA EST EMBL:D33316 comes from...		ATPase associated	
3015	86954466 (6029, 6030)				22278995, 22278996, 22278997, 264259, 29331824, 29331828, 284808, 285007, 265008, 264910, 265011, 265017, 265019, 264691, 33657108, 18108370, 35695855, 264556, 264564
3016	87759945 (6031, 6032)	Novel Protein sim. GBank gij1168819[sp]P41733[CC91_YEAST - CELL DIVISION CONTROL PROTEIN 91		UNCLASSIFIED	52644507, 52646842, 56994075, 52645080, 29331822, 28331824, 35696052, 33656870, 52644045, 264596, 33657084, 265017, 265019, 52644229, 21906767, 35695917, 52644150, 33657023, 33657109, 27486261, 27486262, 27486264, 33657349, 27486265, 35695763, 35695855, 87168518
3017	95011154 (6033, 6034)	Novel Protein sim. GBank gij4589658[dbj]BAA78851.1 - (AB023224) KIAA1007 protein [Homo sapiens]			264488, 18108397, 22278996, 35696286, 22278999, 284259, 29331822, 60432289, 264908, 29331830, 264909, 56182435, 265006, 265007, 265008, 265009, 284591, 60433356, 60433438, 52646317, 21906754, 55811386, 265010, 265011, 87168559, 265017, 265018, 265019, 284288, 284687, 21906765, 21906766, 21906767, 21906769, 265020, 265022, 65274620, 52645129, 33657109, 33657182, 18108370, 283972, 18108374, 264631, 52644332, 83373044, 18108385, 18108388, 56526486, 87168518, 264404, 60432113, 22279000, 264567

3018	11073891 (6035, 6036)				264558	
3019	94148231 (6037, 6038)	Novel Protein sim. GBank gij3219332 (AC004020) - Unknown gene product (Homo sapiens)		oncogene	264569, 52644507, 18108394, 65274572, 56182375, 22278994, 22278995, 56994075, 22278998, 22278999, 264259, 29331822, 29331824, 60432228, 29331827, 264808, 56182435, 265007, 265009, 60432229, 264593, 60433356, 55812038, 21906754, 87168474, 265011, 87168559, 265017, 265018, 265018, 264681, 18108351, 264448, 264682, 264683, 18108354, 264685, 264687, 264689, 21908766, 21908768, 21908769, 52644150, 264690, 264691, 33657023, 264692, 264693, 33657109, 52845129, 33657349, 264629, 65274791, 264634, 52644332, 56182323, 18108385, 87168518, 22279000, 22279002, 264563	
3020	94318251 (6039, 6040)	Novel Protein sim. GBank gij3414809 (AF061529) - <i>ij5</i> [Mus musculus]	Contains protein domain (PF00415) - ATPase associated Regulator of chromosome condensation (RCC1)		264488, 263994, 35696286, 264259, 264508, 264905, 264508, 264908, 264907, 264908, 264909, 264510, 264910, 60174639, 264600, 264603, 264760, 264762, 264682, 264783, 264764, 264288, 264389, 264766, 264687, 264688, 264769, 55811957, 35695917, 33657023, 264628, 35696423, 35695855, 264630, 264632, 264634, 264635, 264636, 264637, 264556, 264557, 264638, 264639, 83373044, 18108385, 264584, 264587, 264485	
3021	80478512 (6041, 6042)	Novel Protein sim. GBank gij380889 (emb) (CAB09005) - (Z95359) cDNA EST yk236d4.5 comes from this gene; cDNA EST EMBL: C13455 comes from this gene; cDNA EST yk329g6.5 comes from this gene; cDNA EST CEMSH45R comes from this gene [Caenorhabditis elegans]			264769, 264629, 264482	
3022	87718500 (6043, 6044)			UNCLASSIFIED	264259, 29331826, 29331828, 264288, 264566	
3023	95305484 (6045, 6046)	Novel Protein sim. GBank gij416592 (sp) P32323 (AGA1_YEAST - A-AGGLUTININ ATTACHMENT SUBUNIT PRECURSOR	Contains protein domain (PF00614) - Phospholipase D. Active site motif	UNCLASSIFIED	264488, 22278995, 35696286, 22278997, 29331826, 35696052, 264907, 29331830, 52644045, 56182435, 60432229, 264592, 60433355, 60433438, 264689, 21908787, 55811957, 35695917, 265021, 18108376, 263978, 264635, 264558, 22279000	
3024	86675305 (6047, 6048)			UNCLASSIFIED	60432049, 264760, 21908769, 55811957, 35695917, 264690, 264555, 264559, 264593, 55811576	
3025	65706629 (6049, 6050)	Novel Protein sim. GBank gij295671 (L11275) - selected as a weak suppressor of a mutant of the subunit AC40 of DNA dependant RNA polymerase I and III [Saccharomyces cerevisiae]				

3026	87643662 (6051, 6052)	Novel Protein sim. GBank gij3024052[sp]P97924[KARI_RAT - KALIRIN (PAM COOH-TERMINAL INTERACTOR PROTEIN 10) (P-CIP10)]		UNCLASSIFIED	22278996, 22278997, 264490, 29331825, 264111, 265007, 60170831, 265010, 87168559, 265019, 21906765, 29148627, 263967, 20281149, 20281068, 263975, 263977, 20281071, 56526486, 22279000, 18108394, 22278995, 22278996, 35696286, 22278997, 22278998, 60432048, 284258, 29331822, 29331824, 68714117, 29331825, 60432289, 29331826, 29331827, 29331828, 35696052, 264905, 264907, 29331830, 264608, 264909, 264510, 265007, 265008, 265009, 264910, 33657402, 264586, 21906764, 265010, 265011, 87168559, 264600, 265018, 18108351, 284682, 284683, 264764, 264288, 264685, 264687, 264768, 264689, 21906765, 21906768, 21906767, 21906768, 21906769, 29148629, 35695917, 265020, 265021, 265022, 52644150, 264692, 33657023, 264693, 52645129, 33657109, 27486261, 18108374, 55811576, 35698423, 65274791, 264636, 264556, 264557, 264638, 60170394, 264638, 264558, 83373044, 18108385, 58528486, 22279000, 22279002, 22278995, 22278996, 22278997, 22278999, 264259, 29331824, 29331827, 35696052, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564
3027	94844563 (6053, 6054)	Novel Protein sim. GBank gij4929647[gb]AAD34084.1[AF15184 - (AF151847) CGI-89 protein (Homo sapiens)]	Contains protein domain (PF01529) - DHHC zinc finger domain	UNCLASSIFIED	22278995, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 29331825, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564
3028	94231997 (6055, 6056)	Novel Protein sim. GBank gij308052[emb]CAA18650] - (AL022589) hypothetical protein [Schizosaccharomyces pombe]	Contains protein domain (PF00400) - WD domain, G-beta repeat	UNCLASSIFIED	22278995, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 29331825, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564
3029	87619284 (6057, 6058)			UNCLASSIFIED	22278995, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 29331825, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564
3030	87544828 (6059, 6060)	Novel Protein sim. GBank gij3757726[emb]CAA18782] - (AL022727) dJ8019.1 (olfactory receptor-like protein [hs8M1-1]) [Homo sapiens]	Contains protein domain (PF00001) - 7 transmembrane receptor (rhodopsin family)	UNCLASSIFIED	22278995, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 29331825, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564
3031	91677953 (6061, 6062)	Novel Protein sim. GBank gij4530587[gb]AAD22105.1] - (AF132000) TADA1 protein [Homo sapiens]		UNCLASSIFIED	22278995, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 29331825, 264908, 265007, 265008, 265009, 60170831, 21906764, 285011, 87168559, 265018, 264762, 264683, 264765, 264889, 21906765, 21906768, 21906769, 29148629, 35695917, 265021, 265022, 33657109, 27486265, 264628, 264629, 18108374, 35696423, 35695855, 264638, 60170394, 22279000, 22279002, 264482, 264564

3032	94130124 (6063, 6064)	Novel Protein sim. GBank gi11019951 (U37429) - similar to M. musculus MERS and other AHPCTSA proteins [Caenorhabditis elegans]	Contains protein domain (PF00534) - synthase Glycosyl transferases group 1	22278986, 35696286, 264259, 29331824, 29331828, 264907, 29331830, 264758, 33109954, 87168474, 87168559, 265019, 264288, 21906769, 285021, 264683, 35696423, 35695855, 264636, 58182323, 83373044, 87168518
3033	95308321 (6065, 6066)	Novel Protein sim. GBank gi50315731 (refNP_005712.1) PACTR - ARP3 (actin-related protein 3, yeast) homolog	Contains protein domain (PF00022) - sinuct Actin	35696286, 264259, 29331826, 35696052, 264508, 264905, 264908, 264907, 264908, 264909, 265008, 264991, 21906754, 265010, 265019, 264681, 264369, 264768, 21906764, 21906768, 35695917, 33657023, 264628, 35695855, 264632, 264635, 264639, 264482, 264563
3034	60415373 (6067, 6068)		UNCLASSIFIED	264906, 264907, 264510, 264592, 265010, 264762, 264766, 264637, 264638, 264486, 264636
3035	91220682 (6069, 6070)	Novel Protein sim. GBank gi3738207 (emb CAA21262) - (AL031853) conserved ATP-GTP binding protein [Schizosaccharomyces pombe]	UNCLASSIFIED	
3036	91718323 (6071, 6072)	Novel Protein sim. GBank gi17288375 (P39194) ALU7_HUMAN - III ALU SUBFAMILY SQ WARNING ENTRY III	kinase	264907, 33657402, 265021
3037	95307434 (6073, 6074)	Novel Protein sim. GBank gi4406590 (gb AAD20040) - (AF131766) Similar to Ena-VASP like protein [Homo sapiens]		265017
3038	95421807 (6075, 6076)	Novel Protein sim. GBank gi5360093 (gb AAD42865.1) AF155099 - (AF155099) NY-REN 18 antigen [Homo sapiens]	Contains protein domain (PF00627) - UBA domain	22278986, 22278997, 264259, 264905, 265007, 265009, 60433356, 21906754, 265018, 265019, 18108351, 264687, 21906765, 285020, 285021, 85274620, 27486262, 264636, 58182323, 18108385, 22278000
3039	87332257 (6077, 6078)	Novel Protein sim. GBank gi475712 (emb CAB42094.1) - (AJ238717) ZRP protein [Rattus norvegicus]	UNCLASSIFIED	35696286, 29331828, 264109, 264110, 264511, 265007, 21906754, 265011, 264681, 264683, 264687, 21906768, 264691, 18108370, 283972, 264629, 18108374, 263977, 35696423, 264594, 18108381, 264692, 264558, 18108382, 18108385, 264567
3040	90933517 (6079, 6080)	Novel Protein sim. GBank gi488427 (emb CAB43247.1) - (AL050037) hypothetical protein [Homo sapiens]	UNCLASSIFIED	
3041	88312357 (6081, 6082)	Novel Protein sim. GBank gi3876073 (emb CAB04122.1) - (Z81505) similar to Zinc finger, C3HC4 type (RING finger); cDNA EST EMBL:D28025 comes from this gene; cDNA EST EMBL:D28024 comes from this gene; cDNA EST EMBL:D33210 comes from this gene; cDNA EST EMBL:D33441 comes from this ...	UNCLASSIFIED	56994075, 22278997, 22278998, 29331827, 33656970, 33109954, 21906754, 87168559, 264600, 264683, 21906765, 21906768, 22278002
3042	85749402 (6083, 6084)	Novel Protein sim. GBank gi1790236 (U21156) - sarcolemmal associated protein-2 [Oryctolagus cuniculus]	glycoprotein	264636

3043	87773028 (6085, 6086)	Novel Protein sim. GBank gi 854065 emb CAA58337  - (X83413) U88 (Human herpesvirus 6)		UNCLASSIFIED	35696286, 60424269, 35696032, 264508, 264905, 66712502, 56182435, 55811386, 52844286, 55811150, 35695917, 60170615, 33657109, 18108374, 264634, 60431850
3044	87645182 (6087, 6088)	Novel Protein sim. GBank gi 4104922 (AF042276) - o251 homolog [Pseudomonas putida]	Contains protein domain (PF01209) - ubiE/COQ5 methyltransferase family	glycoprotein	22278988, 22278998, 22278999, 29331824, 55182435, 264511, 265007, 60170831, 60432229, 60433356, 33109954, 18108351, 264288, 35695917, 18108368, 18108370, 60170394
3045	94127598 (6089, 6090)	Novel Protein sim. GBank gi 4589680 dbj BAA76859.1  - (AB023232) KIAA1015 protein [Homo sapiens]	Contains protein domain (PF00098) - Zinc finger, C2H2 type	dna_ma_bind	284488, 264259, 35696052, 264508, 264905, 264509, 264908, 264907, 264909, 264511, 265008, 264591, 264593, 33109954, 264604, 264784, 264883, 264288, 264786, 264788, 21906765, 21906768, 55811957, 35695917, 27486262, 18108370, 264628, 18108374, 35695955, 264630, 264632, 264635, 264563, 264564, 264566
3046	88098247 (6091, 6092)			UNCLASSIFIED	22278999, 29331822, 29331824, 29331825, 29331826, 60432289, 29331827, 29331828, 264908, 52846317, 55811957, 60432113, 22278000, 22278002, 264482, 264584
3047	95088924 (6093, 6094)			UNCLASSIFIED	264488, 22278998, 22278997, 22278999, 29331824, 29331825, 56182435, 264511, 265008, 265009, 265011, 265017, 264786, 21906768, 21906769, 35695917, 52844190, 33657349, 85274791, 35695855, 264555, 60432113, 22279000, 264566
3048	87829419 (6095, 6096)	Novel Protein sim. GBank gi 4588034 gb AAD25962.1 AF09287 - (AF092878) zinc RING finger protein SAG [Homo sapiens]	Contains protein domain (PF00097) - Zinc finger, C2H2 type (RING finger)	UNCLASSIFIED	264102, 29148784
3049	88229955 (6097, 6098)	Novel Protein sim. GBank gi 5454158 ref NP_006286.1 pVARS - valyl-IRNA synthetase 1	Contains protein domain (PF01406) - IRNA synthetases class I (C)	UNCLASSIFIED	22278997, 29331828, 264907, 264758, 87168559, 285018, 284448, 21806766, 265020, 33657109, 35695855, 60432113, 22278000
3050	87643678 (6099, 6100)	Novel Protein sim. GBank gi 4589642 dbj BAA76843.1  - (AB023216) KIAA0999 protein [Homo sapiens]	Contains protein domain (PF00089) - Eukaryotic protein kinase domain	kinase	264259, 29331825, 264908, 285007, 264512, 265019, 264288, 21906766, 265020, 264693, 18108385, 55526486, 87168518, 22279002, 264566
3051	87750588 (6101, 6102)				22278997, 264595, 265019, 264286, 264653, 87168518
3052	57108030 (6103, 6104)	Novel Protein sim. GBank gi 117528 sp P14755 CRYL_RABIT - LAMBDA-CRYSTALLIN		dehydrogenase	264634

3053	95350373 (6105, 6106)	Novel Protein sim. GBank gi13947613 emb CAA19465.1 - (AL023828) cDNA EST EMBL:M89008 comes from this gene; cDNA EST yk28243.5 comes from this gene (Caenorhabditis elegans)		UNCLASSIFIED	65274572, 56181686, 22278995, 35696286, 22278998, 264259, 60432289, 265008, 265009, 60433438, 21906754, 265010, 87168559, 264603, 265018, 265019, 264763, 264764, 264288, 21908765, 21906766, 21908768, 21908769, 35695917, 18108374, 35696423, 264638, 56182323, 22279000, 264563
3054	86943510 (6107, 6108)	Novel Protein sim. GBank gi1076211 pir S50755 - hypothetical protein VSP-3 - Chlamydomonas reinhardtii		UNCLASSIFIED	35696286, 35696052, 26331830, 264908, 264909, 264512, 264910, 265017, 264604, 264766, 265020, 33657109, 264628, 35695855, 264636, 264564, 264566, 264486
3055	95350537 (6109, 6110)	Novel Protein sim. GBank gi14680859 gb AAD27717.1 AF13294 - (AF132942) CGI-08 protein [Homo sapiens]		transport	60424178, 65274572, 56182575, 35696286, 22278996, 22278999, 60432049, 264259, 60424269, 60432289, 35696052, 56182435, 265006, 265009, 60170831, 60432229, 60431735, 60433356, 264564, 60433438, 21906754, 56811386, 265011, 87168559, 265019, 18108351, 264683, 264288, 264369, 264689, 21906768, 55811957, 35695917, 60170615, 33657023, 65274620, 33657109, 35695763, 60431528, 18108374, 55810764, 55811576, 35696423, 65274791, 264636, 60431850, 18108381, 56182323, 60170384, 18108385, 60432113, 264564, 264565, 264566
3056	91661636 (6111, 6112)	Novel Protein sim. GBank gi1728837 sp P39194 ALU7_HUMAN - IIII ALU SUBFAMILY SQ WARNING ENTRY IIII		glycoprotein	264488, 264569, 18108394, 52646842, 22278997, 22278998, 22278999, 264259, 65714117, 29331826, 26331827, 35696052, 264508, 264509, 264905, 264906, 264907, 264908, 264909, 265006, 264512, 265007, 265008, 265009, 264910, 33657402, 55812038, 264596, 264758, 265010, 265011, 265017, 265019, 264760, 18108351, 264762, 264763, 264794, 264288, 264756, 264687, 18108357, 264768, 264769, 264689, 21906765, 21906766, 21906767, 21906768, 21906769, 35695917, 265020, 265021, 264691, 264693, 33657109, 18108370, 264628, 264629, 18108374, 55811576, 35696423, 35695855, 264630, 264831, 264632, 264834, 264635, 264636, 264637, 264638, 18108381, 83373044, 18108385, 22279000, 22279002, 264563, 264564, 264565, 264566, 264488, 264567

3057	95412748 (6113, 6114)	Novel Protein sim. GBank gl 3878119 emb CAA88660  - (Z49088) similar to GTP-binding protein; cDNA EST EMBL:M89111 comes from this gene; cDNA EST EMBL:D27708 comes from this gene; cDNA EST EMBL:D27708 comes from this gene; cDNA EST EMBL:D73788 comes from this gene; cDNA EST yk353...		strudl	284508, 264905, 264907, 264908, 264909, 264510, 264512, 264910, 264592, 264594, 264767, 18108374, 264635, 264555, 264637, 264639, 264563, 264564, 264565, 264486
3058	79546226 (6115, 6116)	Novel Protein sim. GBank gl 4588034 gb AAD25962.1 AF09287 - (AF092878) zinc RING finger protein SAG [Homo sapiens]	Contains protein domain (PF00097) - Zinc finger, C3HC4 type (RING finger)	UNCLASSIFIED	264683
3059	87529425 (6117, 6118)	Novel Protein sim. GBank gl 4588034 gb AAD25962.1 AF09287 - (AF092878) zinc RING finger protein SAG [Homo sapiens]		UNCLASSIFIED	22278995, 22278996, 22278997, 22278998, 22278999, 264490, 264259, 29331824, 29331825, 29331827, 35696052, 29331828, 265007, 60433438, 265017, 265018, 265019, 264681, 264448, 264288, 264768, 21908765, 21906766, 21906767, 21908769, 28148629, 29148784, 265022, 52644150, 18108370, 264636, 18108385, 264563, 264567
3060	79346691 (6119, 6120)			UNCLASSIFIED	264567
3061	87740964 (6121, 6122)			UNCLASSIFIED	264112, 52644256, 21906768, 33657023, 263974, 18108385
3062	87519465 (6123, 6124)	Novel Protein sim. GBank gl 4454690 gb AAD20963  - (AF070657) glutathione S-transferase subunit 13 homolog [Homo sapiens]		transferase	264908, 265008, 18108351, 264566
3063	60078023 (6125, 6126)	Novel Protein sim. GBank gl 2246532 U93872  - ORF 73, contains large complex repeat CR 73 [Kaposi's sarcoma-associated herpesvirus]		UNCLASSIFIED	18108359, 264558
3064	91241526 (6127, 6128)	Novel Protein sim. GBank gl 4240315 gb BAA74936.1  - (AB020720) KIAA0913 protein [Homo sapiens]	Contains protein domain (PF00403) - Heavy-metal-associated domain	UNCLASSIFIED	52846385, 52646842, 65274572, 56182575, 56181686, 22278995, 22278996, 22278997, 22278998, 264259, 60432049, 29331824, 66714117, 284508, 264907, 264908, 56182435, 265009, 60432228, 60433438, 55812038, 52644296, 265018, 264682, 264288, 264686, 264768, 264687, 52644229, 264689, 21906766, 264691, 264692, 264693, 18108370, 18108377, 55811576, 264636, 56182323, 264558, 264639, 18108385, 22279000, 22279002
3065	91639201 (6129, 6130)	Novel Protein sim. GBank gl 5656743 gb AAD45960.1 AC00506 - (AC005067) Supported by Human EST H08032.1 (NID:g872854), mouse EST AA870042.1 (NID:g2965487), and gensecan [Homo sapiens]		UNCLASSIFIED	22278996, 22278998, 264093, 264094, 264095, 29331824, 60424269, 66714117, 264100, 264907, 265007, 264591, 60432228, 264593, 265011, 265019, 18108351, 264766, 264767, 21908765, 21906768, 264693, 20281069, 22279000, 22279002, 264482, 264566, 264567

3066	91224437 (6131, 6132)	Novel Protein sim. GBank gi 4884268 emb CAB43245.1  - (AL050028) hypothetical protein [Homo sapiens]	UNCLASSIFIED	18108397, 22278995, 56994075, 22278998, 264905, 60712502, 265006, 264512, 264910, 264758, 60174639, 264760, 18108351, 264764, 264683, 18108359, 264692, 18108364, 18108368, 18108370, 18108377, 18108379, 60170394, 264587
3067	95422551 (6133, 6134)	Novel Protein sim. GBank gi 4689258 gb AAD27832.1 AF121859  sorting nexin 9 [Homo sapiens]	Contains protein domain (PF00787) - struct PX domain	264488, 264489, 35696286, 22278998, 56994075, 264259, 28331822, 29331825, 35696052, 28331828, 264508, 264905, 264509, 264906, 264907, 264908, 264909, 264112, 264510, 264511, 264512, 265008, 265009, 264910, 264591, 264592, 264593, 264594, 264757, 264595, 264596, 264758, 265010, 265011, 87168559, 264601, 264602, 264603, 264604, 264605, 265018, 264760, 264762, 284448, 284763, 284764, 284288, 284369, 284768, 284768, 264687, 264769, 264688, 21906765, 21906767, 21906768, 35695917, 265020, 265021, 264534, 52644150, 264691, 33657023, 264693, 264628, 60431528, 263977, 35695855, 264630, 264631, 264634, 264635, 264636, 264637, 264638, 264639, 83373044, 56526405, 87168518, 22279000, 22279002, 264583, 264483, 264584, 264565, 264566, 264597, 264486
3068	85360651 (6135, 6136)	Novel Protein sim. GBank gi 3878119 emb CAA88860  - (Z49068) similar to GTP-binding protein; cDNA EST	Contains protein domain (PF01828) - struct GTPase of unknown function	22278996, 56994075, 22278998, 22278999, 264259, 264107, 264905, 28331830, 52644045, 264110, 60170831, 264592, 264594, 33657402, 21906754, 33109954, 87168474, 87168559, 265017, 264448, 264764, 264683, 264768, 52644229, 21906765, 21906768, 21906768, 21906769, 60170615, 33657023, 18108370, 18108376, 264634, 264557, 60170394, 56182323, 18108385, 87168518, 22279000, 264482
3069	95412753 (6137, 6138)	Novel Protein sim. GBank gi 3878119 emb CAA88860  - (Z49068) similar to GTP-binding protein; cDNA EST EMBL:M89111 comes from this gene; cDNA EST EMBL:D27708 comes from this gene; cDNA EST EMBL:D27708 comes from this gene; cDNA EST EMBL:D73788 comes from this gene; cDNA EST yk353...		



3070	64318173 (6139, 6140)	Novel Protein sim. GBank gi 387778 emb CA055271 - (Z83110) cDNA EST yk472b5.3 comes from this gene; cDNA EST yk472b5.5 comes from this gene; cDNA EST yk468c10.3 comes from this gene; cDNA EST yk468c10.5 comes from this gene; cDNA EST EM...		synthase	284488, 22278984, 22278985, 22278986, 58994075, 22278997, 22278998, 264259, 29331822, 29147820, 29331824, 66714117, 29331826, 29146498, 29146499, 66712502, 29331830, 52644045, 56182435, 264511, 265007, 264512, 264910, 60170831, 264592, 264758, 33109954, 21906754, 87168474, 265018, 18108351, 264448, 264683, 264238, 52644228, 264689, 21906765, 21906766, 21906767, 21906769, 35695917, 265020, 265021, 60170815, 52644150, 264691, 33657023, 27486261, 27486264, 264628, 18108370, 18108377, 55811576, 35695855, 264634, 264635, 18108381, 60170394, 56182323, 264558, 83373044, 18108385, 18108387, 56526486, 264404, 264563, 264566
3071	94325573 (6141, 6142)	Novel Protein sim. GBank gi 4502425 ref NP_001709.1 pBMP6 - bone morphogenetic protein 6 precursor	Contains protein domain (PF00085) - Igf Thioedoxin		264488, 63274572, 18108398, 22278986, 35695286, 22278997, 22278998, 22278999, 264259, 28331822, 66714117, 29331826, 35698052, 29331828, 29146498, 29146499, 264807, 264908, 29331830, 264908, 52644045, 56182435, 265006, 265007, 264512, 265008, 265009, 60170831, 60432229, 264592, 60433356, 33657402, 60433438, 33109954, 52644296, 87168474, 265010, 265017, 264681, 264288, 264685, 264766, 264687, 264769, 264689, 21906765, 21906766, 21906767, 21906768, 21906769, 35695917, 265020, 265021, 265022, 60170815, 52644150, 264690, 264691, 264692, 33657023, 264693, 33657109, 263971, 18108374, 18108377, 35696423, 55811576, 65274791, 35695855, 264630, 264635, 264636, 264557, 60170394, 83373044, 60432113, 22279000, 22279002, 264563, 264584, 264585, 264586, 264587, 56182575, 29331822, 29331824, 29331825, 29146498, 264908, 52644045, 56182435, 265009, 60433438, 55812036, 18108351, 264683, 264369, 52644229, 52644150, 33657023, 264693, 33657109, 18108374, 55811576, 65274791, 264555, 56182323, 60432113, 264564
3072	95115692 (6143, 6144)	Novel Protein sim. GBank gi 1263289 (U47856) - fibrin-4 (Araneus diadematus)		transcriptfactor	

3073	85147248 (6145, 6146)	Novel Protein sim. GBank glij34840(sp)P22528(CORB_HUMAN - CORNIFIN B (SMALL PROLINE-RICH PROTEIN [B] (SPR-IB) (14.9 KD PANCORNULIN)		UNCLASSIFIED	264769
3074	88089351 (6147, 6148)	Novel Protein sim. GBank glij3419847 (AC004982) - similar to yeast hypothetical protein ybk4; similar to P38164 (PID:g586461) [Homo sapiens]		UNCLASSIFIED	264488, 265019, 264448, 264288, 21606767, 264693, 18108368, 18108370, 18108374, 264567
3075	88093752 (6148, 6150)	Novel Protein sim. GBank glij4557349(refNP_000458.1)pBARD - BRCA1 associated RING domain 1	Contains protein domain (PF00023) - Ank repeat	homeobox	264509, 264907, 264689, 264693, 56526486
3076	87819219 (6151, 6152)			UNCLASSIFIED	18108398, 29331822, 29331827, 60432229, 265017, 264691, 264693
3077	88734277 (6153, 6154)	Novel Protein sim. GBank glij3023956(sp)Q00808(HET1_PODAN - VEGETATIBLE INCOMPATIBILITY PROTEIN HET-E-1	Contains protein domain (PF00400) - WD domain, G-beta repeat	kinase	65274572, 35696052, 264511, 60170831, 87168474, 264369, 35695917, 33657182, 27486264, 33657349, 35695763, 35695855, 264639
3078	88089355 (6155, 6156)	Novel Protein sim. GBank glij3900850 (AC004994) - similar to KIAA0600; similar to d1026456 (PID:g3043724) [Homo sapiens]			22279002
3079	87821893 (6157, 6158)	Novel Protein sim. GBank glij3875410(emb)CA802876] - (Z81052) Similarity to Yeast ABC1P protein (SW:ABC1_YEAST); cDNA EST yk229g8.3 comes from this gene; cDNA EST yk229g8.5 comes from this gene [Caenorhabditis elegans]		transport	29331824, 29331826, 264758, 55811388, 265017, 55811150, 52644228, 21906768, 265020, 265021, 264693, 18108376, 264631, 52644332, 22279002
3080	85208274 (6159, 6160)	Novel Protein sim. GBank glij525722(gbjAAD41265.1) - (AF117887) protein arginine methyltransferase [Mus musculus]		interferon	264488, 52644507, 22278998, 22278998, 264480, 264259, 29331824, 68714117, 29331825, 29331826, 29331827, 29331828, 29146499, 264508, 264905, 264828, 52644045, 56182435, 265006, 264591, 264596, 21908754, 60174639, 285010, 264682, 264448, 264763, 264683, 264764, 264288, 264885, 264769, 264888, 264889, 21908765, 21908767, 21908789, 55811857, 35695917, 265020, 60170615, 52644150, 264692, 33637023, 264693, 65274620, 33657108, 27486261, 35695763, 264628, 18108370, 65274791, 264558, 56182323, 60170394, 264482, 264565, 264484
3081	88094884 (6161, 6162)	Novel Protein sim. GBank glij728831(sp)P39188(ALU1_HUMAN - IIII ALU SUBFAMILY J WARNING ENTRY IIII		UNCLASSIFIED	18108398, 264509, 264905, 264906, 264907, 264908, 264909, 264510, 264511, 265009, 264910, 264595, 264758, 265011, 265018, 264760, 264761, 264763, 264764, 18108354, 264685, 264766, 264628, 264629, 264630, 264631, 264632, 264634, 264635, 264555, 264638, 18108382, 18108385, 264563, 264565, 264566
3082	80310121 (6163, 6164)				264764, 55811857, 264555, 264564

3083	88095756 (6165, 6166)	Novel Protein sim. GBank gij868241 (U28488) - C56C10.3 gene product [Caenorhabditis elegans]	UNCLASSIFIED	264488, 264259, 29331824, 264108, 265008, 264581, 264592, 21806754, 264288, 264767, 21906768, 21906769, 29148784, 264691, 264632, 22279000
3084	87448568 (6167, 6168)	Novel Protein sim. GBank gij476774(pij437475 - probable structural component p38 - borna disease virus		22278955, 60432289, 35696052, 264905, 264906, 264907, 264908, 264909, 265006, 265007, 264910, 264593, 264595, 264758, 264369, 264288, 264786, 35695917, 265020, 18108374, 35696423, 264631, 264556, 264565, 264566, 264567, 264488
3085	87795781 (6169, 6170)	Novel Protein sim. GBank gij2565057 (U80741) - CAGH44 [Homo sapiens]	UNCLASSIFIED	265011, 264681
3086	87769942 (6171, 6172)	Novel Protein sim. GBank gij3894189 (AC005662) - hypothetical protein [Arabidopsis thaliana]	UNCLASSIFIED	22278998, 264092, 264259, 29331822, 29331825, 264108, 264112, 18108351, 264687, 263967, 263974, 55810764, 263981, 18108385, 284487
3087	87462888 (6173, 6174)			52646385, 56994075, 22278997, 22278998, 29331824, 29331825, 35696052, 60433438, 33109954, 21906754, 52646317, 285017, 284682, 264369, 264884, 21906767, 21906768, 265020, 264891, 33657023, 33657109, 52645128, 33657182, 27488262, 35695855, 87168518
3088	91224441 (6175, 6176)	Novel Protein sim. GBank gij3355304 (AF001549) - Unknown gene product [Homo sapiens]	UNCLASSIFIED	264591
3089	95361242 (6177, 6178)	Novel Protein sim. GBank gij4689146(gbjAAD27782.1)AF07704 - (AF077049) lambda-bda-crystallin [Homo sapiens]	Contains protein domain (PF00725) - dehydrogenase 3-hydroxyacyl-CoA dehydrogenase	18108397, 65274572, 56182575, 56181686, 56994075, 35696286, 22278997, 22278998, 264259, 29331824, 29331825, 29331826, 29331828, 264907, 29331830, 264909, 56182435, 264510, 265007, 60170831, 60432228, 21906754, 55811386, 285017, 265018, 265019, 264760, 55811150, 264288, 264766, 56181562, 21906765, 21906766, 21906767, 21906768, 265021, 60170815, 27488262, 18108370, 60431528, 35696423, 264558, 264559, 60432113, 264488

3080	95342371 (6179, 6180)	Novel Protein sim. GBank gi 1354050 (U47024) - MEM3 [Mus musculus]		UNCLASSIFIED	60424179, 52845156, 65274572, 56182575, 56181686, 22278995, 35688286, 58984075, 22278996, 22278998, 22278999, 264259, 29331822, 56182181, 29331824, 29331825, 29331826, 29331827, 29331828, 35686052, 33556970, 264906, 264908, 52644045, 264828, 265006, 265007, 265008, 60170831, 60432229, 60433356, 33657402, 55812038, 264758, 21906754, 33109954, 52646317, 55811386, 52844296, 87168474, 265011, 87168559, 265017, 265018, 265019, 55811150, 18108351, 264681, 264448, 264288, 264389, 18108357, 264788, 52644229, 56181562, 21906764, 21906765, 21906766, 21906767, 21906768, 21906769, 35695917, 265020, 265022, 60170815, 264680, 52644150, 264691, 33657023, 18108365, 65274620, 33657109, 18108368, 33657182, 27486261, 27486265, 35695763, 18108374, 18108376, 55810764, 35696423, 55811576, 65274791, 35695855, 264557, 56182323, 83373044, 18108387, 18108388, 87168518, 22279000, 22279002, 264563, 264482
3081	9537424 (6181, 6182)	Novel Protein sim. GBank gi 3873932 emb CA018591 - (Z79596) Similarity to Bovine aspartyl beta hydroxylase (TR:G182694); cDNA EST EMBL:D27916 comes from this gene; cDNA EST EMBL:D27915 comes from this gene; cDNA EST EMBL:D64881 comes from this gene; cDNA EST EMBL:D68139 comes f...		UNCLASSIFIED	35696286, 29331822, 35696052, 264508, 264509, 264905, 264906, 264908, 264909, 264510, 264758, 265010, 265011, 264683, 264685, 264766, 264768, 264769, 264693, 264628, 35696423, 35695855, 264632, 264635, 264639, 264482, 264563, 264486





3102	81220882 (6203, 6204)	Novel Protein sim. GBank gij5305705 gijAAD41781.1 AF12853 - (AF128536) cytoplasmic phosphoprotein PACSIN2 (Homo sapiens)	Contains protein domain (PF00018) - struct SH3 domain	35596285, 22278996, 22278998, 29331827, 35596052, 264909, 264512, 265008, 60170831, 60433356, 33109854, 18108351, 264684, 264688, 21908787, 60170615, 264692, 33657023, 284838, 22279000, 264482, 264564 35595917, 264565
3103	80938004 (6205, 6206)	Novel Protein sim. GBank gij464564 spP35292 RB17_MOUSE - RAS-RELATED PROTEIN RAB-17	UNCLASSIFIED	
3104	87340633 (6207, 6208)	Novel Protein sim. GBank gij5032207 re NP_005698.1 pTSSC - tumor-suppressing STF cDNA 6	UNCLASSIFIED	284259, 264684, 264532, 33657182, 264538
3105	94148603 (6209, 6210)			22278997, 264259, 29331824, 35696052, 29331828, 264508, 264509, 264905, 264908, 264907, 264908, 264511, 264910, 264591, 264594, 264758, 264760, 264681, 264782, 264784, 264288, 264786, 264788, 264687, 264789, 21908786, 21908788, 35695917, 33657023, 264692, 264693, 264628, 264629, 35595855, 264630, 264631, 264632, 264634, 264635, 264637, 264638, 264639, 83373044, 264404, 22279002, 264563, 264565, 264566, 264486, 264567
3106	95361416 (6211, 6212)	Novel Protein sim. GBank gij1938574 (U97190) - B0025.2 gene product [Caenorhabditis elegans]		22278996, 22278997, 22278998, 22278999, 264092, 264093, 264094, 29331822, 264908, 264907, 264908, 52644045, 56182435, 264112, 265008, 265009, 55812038, 265017, 265018, 264683, 264686, 264687, 264788, 52644229, 21908765, 21908768, 21908769, 55811957, 265020, 265022, 264690, 52644150, 264692, 264693, 18108370, 18108377, 55811576, 56182323, 18108385, 18108388, 22279000, 264583
3107	95343272 (6213, 6214)	Novel Protein sim. GBank gij334144  Iemb CAA76851  - (Y17794) winged-helix transcription factor [Gallus gallus]		22278995, 22278996, 35696286, 22278997, 22278999, 264091, 264093, 264259, 29331822, 29331825, 29331826, 60432289, 29331827, 29331828, 33656970, 264105, 264512, 265009, 60433356, 60433438, 265011, 265017, 265018, 21908765, 21908768, 21908769, 265021, 264691, 33657108, 27488261, 27488265, 18108370, 263972, 18108374, 55811576, 18108385, 56526486, 264482, 264487, 56182435, 264288, 264690, 264564
3108	87340635 (6215, 6216)	Novel Protein sim. GBank gij5032207 re NP_005696.1 pTSSC - tumor-suppressing STF cDNA 6	UNCLASSIFIED	

3109	94318461 (6217, 6218)	Novel Protein sim. GBank gjl5002587[emb/CAB44347.1] - (Y17454) LSFRI protein [Homo sapiens]	Contains protein domain (PF00098) - Zinc finger, C2H2 type	struct	264490, 264608, 265007, 264810, 264593, 264883, 264684, 264867, 21806767, 21908798, 264693, 18108370, 264629, 18108374, 264632, 264638, 22279000
3110	95090716 (6218, 6220)	Novel Protein sim. GBank gjl076211[prjIS0755 - hypothetical protein VSP_3 - Chlamydomonas reinhardtii]		UNCLASSIFIED	264488, 65274572, 22278995, 22278997, 60432049, 264259, 29331822, 29331824, 29331825, 60432288, 29331826, 29331827, 29331828, 264808, 264510, 265008, 265007, 265008, 265008, 60432228, 33857402, 60433356, 265011, 87168559, 264600, 265017, 265018, 265019, 18108351, 264288, 264368, 21906766, 21906787, 21908768, 265020, 60170615, 264693, 65274620, 18108370, 264639, 18108384, 22279000, 264553, 18108390
3111	87754512 (6221, 6222)	Novel Protein sim. GBank gjl3282231 (U75454) - C2H2 type zinc finger protein [Homo sapiens]	Contains protein domain (PF00096) - Zinc finger, C2H2 type	transcriptfactor	264488, 18108398, 66712502, 265017, 265018, 265019, 264448, 21908787, 265020, 33857023, 18108385, 18108388, 35696423, 52644332, 18108385, 18108388
3112	88043639 (6223, 6224)	Novel Protein sim. GBank gjl3900848 (AC005023) - match to EST AA361117 (NID:2013436) [Homo sapiens]	Contains protein domain (PF00046) - Homeobox domain	homeobox	
3113	88207098 (6225, 6226)	Novel Protein sim. GBank gjl2458910 (AF005856) - anon2A5 [Drosophila yakuba]		tm7	18108387, 22278998, 264259, 29331824, 35696052, 264907, 264757, 60433438, 87168559, 264783, 264448, 18108354, 264288, 21906787, 21908788, 35595917, 264690, 264691, 264692, 264693, 18108365, 18108381, 18108384, 18108385, 18108388, 87168518, 22279000, 22279002
3114	79843167 (6227, 6228)	Novel Protein sim. GBank gjl4966270[prjA852261.2] - (U97002) similar to acyl-CoA dehydrogenases and epoxide hydrolases; Pfam domain PF00441 (Acyl-CoA_dh). Score=57.4, E-value=1.7e-16, N=2; contains similarity to Pfam domain PF00702 (Hydrolase), Score=57.4, E-value=1e-13, N=1 [C...]	Contains protein domain (PF00702) - haloacid dehalogenase-like hydrolase	hydrolase	
3115	94117996 (6229, 6230)	Novel Protein sim. GBank gjl5032225[re]NP_005676.1[pWBSC - Williams-Beuren syndrome chromosome region 11]		transcriptfactor	60424179, 55182575, 264259, 29331824, 60424289, 29331826, 66712502, 264510, 265007, 60431735, 60433356, 55812038, 55811388, 265019, 264288, 264689, 21908788, 264691, 33857023, 264693, 60431528, 263974, 60431850, 56182323, 264559, 22279000, 22279002
3116	79842855 (6231, 6232)			UNCLASSIFIED	264905, 264758, 21908784, 264690
3117	87771288 (6233, 6234)			UNCLASSIFIED	264510, 265011, 18108351, 264288, 264689, 264691, 18108368, 18108372, 263981, 264558, 264584



3118	84655848 (6235, 6236)	Novel Protein sim. GBank gij380563jemb CAB01444.1  - (Z78018) predicted using GeneFINDER, similar to serine/threonine kinase: cDNA EST YK353d10.5 comes from this gene [Caenorhabditis elegans]	Contains protein domain (PF00008) - Igf EGF-like domain	52645156, 52646842, 65274572, 56182575, 22278995, 56994075, 22278998, 35686286, 22278997, 22278998, 22278999, 264259, 29331822, 29331824, 66714117, 29331826, 29331827, 35686052, 29331828, 264905, 264908, 29331830, 52644045, 56182435, 284510, 284511, 265007, 265008, 265009, 284757, 52846317, 21906754, 33657084, 52644298, 87168474, 87168559, 265017, 265018, 264605, 265019, 264762, 284448, 264682, 264684, 264288, 264766, 56181582, 21906765, 21906766, 21906768, 21908768, 265020, 265022, 264690, 52644150, 264681, 33657023, 264693, 33657109, 33657349, 284628, 18108370, 60431528, 18108374, 35686423, 65274791, 60170394, 83373044, 87168559, 21906765, 52644150, 33657023, 18108374, 264637
3119	85728766 (6237, 6238)		Contains protein domain (PF00328) - Histidine acid phosphatase	264488, 264509, 264510, 264511, 264512, 264288, 264488
3120	87344040 (6239, 6240)	Novel Protein sim. GBank gij5019819 gi AD37863.1 AF14315 - (AF143152) putative NADH oxidoreductase complex I subunit [Caenorhabditis elegans]	UNCLASSIFIED	
3121	94110735 (6241, 6242)	Novel Protein sim. GBank gij4501877 re NP_001088.1 pACR  - acrosin		52644507, 52645156, 52646385, 52646842, 22278994, 56994075, 22278996, 22278999, 264259, 29331824, 29331827, 35686052, 52644045, 265008, 52646317, 87168474, 87168559, 21906765, 52644150, 33657023, 18108374, 264637
3122	11814528 (6243, 6244)		UNCLASSIFIED	264638
3123	88083003 (6245, 6246)	Novel Protein sim. GBank gij2439517 (AC002553) - putative RHO/RAC effector protein; 85% similarity to P49205 (PID.g1345860) [Homo sapiens]	Contains protein domain (PF00780) - CNH domain	18108392, 29331822, 29331824, 29331825, 264905, 265007, 55812038, 265019, 18108351, 264692, 264288, 264766, 21906764, 21906765, 21906768, 21906769, 55811957, 18108365, 18108366, 27486265, 18108374, 18108381, 18108384, 22279000, 22279002, 264482
3124	87786899 (6247, 6248)		UNCLASSIFIED	264905
3125	91216607 (6249, 6250)	Novel Protein sim. GBank gij4980826 gi AD35412.1 AE00171 - (AE001714) oxidoreductase, short chain dehydrogenase/reductase family [Thermotoga maritima]	Contains protein domain (PF00106) - short chain dehydrogenase	56181696, 264259, 68714117, 60432289, 29331826, 29331827, 264607, 264608, 264828, 265009, 60433368, 33657402, 60433438, 264756, 18108351, 264288, 29148627, 29148629, 33657023, 33657109, 18108382, 56526486

3126	95337205 (6251, 6252)			UNCLASSIFIED	22278999, 264490, 264259, 60432049, 29331822, 60432289, 29146498, 52644045, 56182435, 285009, 60433438, 265010, 87188559, 285017, 265018, 55811150, 264763, 264683, 284389, 284685, 29148629, 33657023, 264693, 33657109, 18108374, 55811576, 18108385, 60432113, 22279002, 35696286, 22278996, 22278999, 28331826, 284908, 60433438, 87168559, 264604, 21906765, 21908768, 33657023, 33657349, 264629, 18108374, 18108377, 22278000, 22279002
3127	91639233 (6253, 6254)	Novel Protein sim. GBank gjl2828280[emb]CAA16694.1 - (AL021687) putative protein [Arabidopsis thaliana]			
3128	87674330 (6255, 6256)	Novel Protein sim. GBank gjl3865828 (AF090133) - lin-7-A [Rattus norvegicus]	Contains protein domain (PF00595) - POZ domain (Also known as DHR or GLGF).	misc_channel	22278996, 264259, 52644045, 285008, 21906754, 285017, 265018, 21906768, 18108376, 18108387, 22278000, 22279002
3129	87755412 (6257, 6258)	Novel Protein sim. GBank gjl3135273 (AC003038) - hypothetical protein [Arabidopsis thaliana]	Contains protein domain (PF00400) - WD domain, G-beta repeat	kinase	58182575, 264259, 29331825, 29331828, 52844045, 56182435, 60433356, 264600, 264682, 264763, 284764, 264369, 264288, 264686, 55811957, 284682, 33657023, 33657109, 60432113, 284564, 284566, 284836
3130	14983860 (6259, 6260)	Novel Protein sim. GBank gjl3329465 (AF084553) - NSD1 protein [Mus musculus]			
3131	95351469 (6261, 6262)	Novel Protein sim. GBank gjl1848277 (U86136) - telomerase-associated protein TP-1 [Homo sapiens]	Contains protein domain (PF00400) - WD domain, G-beta repeat	UNCLASSIFIED	56182575, 264259, 29331824, 264907, 56182435, 284594, 60433438, 55812038, 33109954, 21908754, 33657084, 87168474, 264448, 264768, 21908789, 55811957, 265020, 265021, 265022, 60170615, 33657023, 33657109, 33657182, 27486261, 33657349, 65274791, 60170394, 56182323, 83373044, 87168518, 284564

3132	95415459 (6263, 6264)	Novel Protein sim. GBank gi 4680647 gb AA027713.1 AF13293 (AF132938) CGI-03 protein [Homo sapiens]	Contains protein domain (PF00789) - UBX domain	- ubiquitin	5284507, 5284682, 52846365, 65274572, 56182575, 22278994, 22278995, 35696286, 56994075, 22278996, 22278997, 22278998, 22278999, 60432049, 52845080, 29331822, 29331824, 29331825, 60432289, 29331826, 29331827, 29331828, 35696052, 264508, 52844045, 56182435, 264910, 60170831, 60432229, 60433356, 33657402, 55812038, 52846317, 21906754, 52644298, 85658542, 87168559, 285017, 265018, 265019, 264446, 264288, 264369, 52644229, 21906765, 21906766, 21906767, 21906768, 21906769, 35695917, 265020, 265021, 60170615, 52644150, 264682, 33657023, 52645129, 33657109, 33657182, 27488281, 27488282, 27488285, 33657349, 35695763, 18108374, 18108376, 55811576, 35695855, 18108385, 18108387, 56526486, 87168518, 60432113, 22279002
3133	87379414 (6265, 6266)	Novel Protein sim. GBank gi 4507613 ref NP_003738.1 pTNKS - TANKYRASE		polymerase	22278994, 22278998, 264905, 265006, 265007, 87168559, 264760, 21906767, 18108374, 22279000, 22279002, 264563 264595, 264369, 264685, 264628, 264566
3134	94649816 (6267, 6268)	Novel Protein sim. GBank gi 1729827 sp P54633 TALA_DICD1 - FILOPODIN (TALIN HOMOLOG)			
3135	86385356 (6269, 6270)	Novel Protein sim. GBank gi 3093478 (AF012927) - fibrinogen-binding protein [Streptococcus equi]		struct	22278996, 264095, 29331826, 33657402, 18108348, 263974
3136	94845639 (6271, 6272)	Novel Protein sim. GBank gi 627101 pir J544092 - probable carrier protein c2 - Caenorhabditis elegans	Contains protein domain (PF00153) Mitochondrial carrier proteins	transport	22278998, 264259, 264828, 265006, 265008, 60433438, 285018, 284764, 264286, 264769, 264689, 265020, 27486262, 263972, 65274791, 264557, 264558
3137	88257947 (6273, 6274)	Novel Protein sim. GBank gi 3342730 (AC005331) - R31341_1 [Homo sapiens]		UNCLASSIFIED	22278995, 22278996, 22278997, 22278998, 22278999, 264259, 29331822, 29331825, 29331826, 29331827, 29331828, 264510, 265008, 21906754, 87168474, 265011, 87168559, 265017, 265018, 265019, 18108351, 264682, 264769, 21906765, 21906766, 21906767, 21906769, 55811957, 35695917, 285020, 265021, 52644150, 18108370, 18108374, 22279000, 22279002, 264482, 264486

3138	94130186 (6275, 6276)	Novel Protein sim. GBank gi 4405759 gb AAD20070  - (ACO06838) hypothetical protein [Arabidopsis thaliana]			264588, 264488, 264907, 264511, 264593, 33109854, 87168558, 264681, 264684, 264685, 264686, 264687, 264768, 264688, 264689, 264691, 264692, 264693, 33657108, 264631, 264634, 264635, 264636, 264637, 60170394, 83373044, 18108385, 18108388, 60432113, 22279000, 22279002
3139	87325503 (6277, 6278)	Novel Protein sim. GBank gi 228938 pf 1814452C - Hyp-rich glycoprotein [Zea diploperennis]	UNCLASSIFIED		22278997, 22278998, 22278999, 264905, 265018, 265019, 21908765, 265020, 264636, 264557
3140	91222692 (6278, 6280)	Novel Protein sim. GBank gi 932 emb CAA37773  - (X53744) 68kDa subunit of signal recognition particle [Canis familiaris]	struct		22278995, 56994075, 35696286, 264908, 264909, 60433356, 21908754, 52644298, 87168474, 87168558, 264683, 264288, 264685, 264686, 265022, 264693, 27486262, 35695855, 264630, 264556, 264556
3141	87323564 (6281, 6282)	Novel Protein sim. GBank gi 3213227 (AF035209) - putative v-SNARE VII1a [Mus musculus]	UNCLASSIFIED		58182575, 35696288, 26331828, 284909, 265009, 265018, 18108351, 284389, 21908766, 29148627, 265020, 284828, 264629, 264631, 18108385
3142	95419028 (6283, 6284)	Novel Protein sim. GBank gi 2498197 sp Q95245 C561_PIG - CYTOCHROME B561 [CYTOCHROME B-561]	cytochrome		52645156, 52646365, 22278995, 35696286, 22278998, 22278999, 60432049, 264259, 29331822, 29331824, 29331827, 29146499, 56182435, 265007, 60170631, 60432229, 33657402, 264595, 60433438, 264758, 21806754, 264288, 264766, 264687, 52644229, 21906785, 21908767, 21908768, 60170615, 52644150, 65274620, 33857109, 35695763, 18108370, 18108376, 65274791, 35695855, 264631, 264557, 87168518, 80432113, 22279000
3143	95351475 (6285, 6286)	Novel Protein sim. GBank gi 5420387 emb CAB46579.1  - (AJ243459) proteophosphoglycan [Leishmania major]	UNCLASSIFIED		264488, 56182575, 22278996, 22278998, 22278999, 29331822, 29331824, 60432289, 35696052, 29331828, 264508, 264905, 264906, 264907, 264908, 264909, 52644045, 56182435, 264511, 264512, 265008, 264910, 60432229, 33657402, 60433356, 60433436, 55812036, 265011, 265018, 264760, 264763, 264448, 264764, 264684, 264288, 264685, 264686, 264768, 264689, 21906765, 21906766, 21906767, 21906769, 35695917, 264690, 33657023, 264693, 263967, 33857108, 264628, 264629, 18108374, 263976, 55811576, 35695855, 264630, 264631, 264632, 264634, 264635, 264636, 264637, 264558, 87168518, 60432113, 22279000, 22279002, 264563, 264566, 264488

95336329 (6287, 6288)	Novel Protein sim. GBank gll4884468[emb CAB43322.1] - (AL050225) hypothetical protein [Homo sapiens]			264488, 18108398, 22278998, 35656286, 22278997, 22278989, 28331828, 29331827, 35686052, 29331828, 264106, 265006, 265007, 265009, 33857402, 86858542, 265011, 18108351, 264448, 264369, 21906765, 21908768, 21908767, 265020, 265021, 52644150, 27486291, 18108370, 18108374, 35696423, 56182323, 83373044, 22279000, 22279002, 264587
86611657 (6288, 6290)	Novel Protein sim. GBank gll3879709[emb CAB03330] - (Z81118) Similarity to Human endosomal protein P162 (TRQ15075): cDNA EST EMBL-Z14487 comes from this gene; cDNA EST EMBL-Z14556 comes from this gene; cDNA EST EMBL-D27011 comes from this gene; cDNA EST EMBL-D27015 comes from L.	UNCLASSIFIED		18108397, 29331824, 28148499, 20281100, 265006, 55812038, 265010, 21908769, 24148627, 21908769, 29148784, 264692, 33657023, 33657109, 35695763, 263981, 56182323, 87168518
87756314 (6291, 6292)	Novel Protein sim. GBank gll2135746[pir S63990] - mitogen Inducible gene mlg-2 - human	Contains protein domain (PF00169) - PH domain	struct	264259, 29331826, 29331828, 29331830, 264510, 264511, 265007, 265009, 264800, 265017, 18108331, 264448, 264369, 21908768, 265021, 264892, 33657109, 18108374, 35696423, 35695855, 60432113, 264584
94848512 (6293, 6294)	Novel Protein sim. GBank gll3874279[emb CAB07315.1] - (Z92825) Predicted using GeneFinder; cDNA EST yk315e12.3 comes from this gene; cDNA EST yk315e12.5 comes from this gene [Caenorhabditis elegans]	Contains protein domain (PF00702) - haloacid dehalogenase-like hydrolase	UNCLASSIFIED	56181686, 35696286, 60432049, 264259, 56182181, 29331825, 60432289, 35696052, 56182435, 265008, 264910, 60431735, 60433356, 60433438, 265010, 264448, 264288, 265022, 33657023, 33657109, 60431528, 65274791, 284631, 56182323, 264404, 22278002
95362169 (6295, 6296)	Novel Protein sim. GBank gll5223322[gb AAD40851.1] (AF083108) siruin type 3 [Homo sapiens]	UNCLASSIFIED		35696286, 35696052, 264511, 85658542, 87168474, 264764, 35696423, 264555, 264556, 264557, 264558, 83373044, 56526486, 60432113
95308548 (6297, 6298)	Novel Protein sim. GBank gll4200446 (AF102777) - FYVE finger-containing phosphoinositide kinase [Mus musculus]	Contains protein domain (PF01363) - FYVE zinc finger	eph	29331822, 35696052, 264109, 29148629, 18108381
87655472 (6299, 6300)	Novel Protein sim. GBank gll378454[emb CAA76893] - (Y17890) ganglioside-induced differentiation associated protein 1 [Mus musculus]	Contains protein domain (PF00043) - Glutathione S-transferases.	transferase	264259, 29331822, 29331824, 29331825, 29331827, 52648437, 264688, 35695855, 56182323, 264639
87772355 (6301, 6302)	Novel Protein sim. GBank gll172591 (M63577) - SFP1 [Saccharomyces cerevisiae]	Contains protein domain (PF00096) - Zinc finger, C2H2 type	oncogene	29331822, 265008
85698108 (6303, 6304)		UNCLASSIFIED		21906754, 87168559, 264605, 21908768, 52644150, 27486294, 35696423, 22278000

3153	95317298 (6305, 6306)	Novel Protein sim. GBank gi 4885041 gb AAD32705.1 AF14395 - (AF143957) coronin-3 [Mus musculus]	Contains protein domain (PF00400) - struct WD domain, G-beta repeat		254488, 52646365, 35696286, 22278996, 22278997, 22278998, 60432049, 264259, 29331826, 60432289, 33658970, 264508, 264908, 33657402, 264595, 60433438, 87168474, 87168559, 264601, 265019, 264448, 264682, 264784, 264288, 264369, 264768, 21908765, 21908768, 21908767, 21908768, 21908769, 29148784, 265021, 265022, 60170815, 52644150, 264690, 264691, 33657023, 63274620, 33657109, 18108370, 35695855, 264638, 60170394, 87168518, 60432113, 22279000, 22279002, 22278998, 264259, 29331824, 66712502, 265008, 265010, 265017, 18108354, 264691, 33657023, 264693, 20281149, 18108374
3154	87718573 (6307, 6308)	Novel Protein sim. GBank gi 4680661 gb AAD27720.1 AF13294 - (AF132945) CGI-11 protein [Homo sapiens]	ATPase associated		22278998, 264259, 29331824, 66712502, 265008, 265010, 265017, 18108354, 264691, 33657023, 264693, 20281149, 18108374
3155	87762394 (6309, 6310)	Novel Protein sim. GBank gi 728637 sp P39194 ALU7_HUMAN - IIII ALU SUBFAMILY SQ WARNING ENTRY IIII	UNCLASSIFIED		29331828, 264509, 264905, 264908, 264510, 264511, 264512, 33657402, 264681, 264683, 33657023, 18108370, 264634, 264639, 18108385, 264563, 264486
3156	87737449 (6311, 6312)	Novel Protein sim. GBank gi 5630078 gb AAD45821.1 AC00501 - (AC005017) N-acetylglucosaminyltransferase, similar to Q10473 (PID: g1709559) [Homo sapiens]	Contains protein domain (PF00652) Similarity to lectin domain of ricin beta-chain, 3 copies.	transferase	58182575, 22278996, 22278997, 22278998, 22278999, 60432049, 264259, 29331822, 29331824, 66714117, 29331825, 29331826, 29331827, 35696052, 52644045, 265007, 265009, 60170831, 60432229, 60433356, 21908754, 33109954, 87168474, 265010, 265017, 265018, 265019, 18108351, 264448, 264288, 264689, 21908768, 21908769, 35695917, 265020, 265022, 264692, 18108370, 35696423, 58182323, 22279002
3157	88259577 (6313, 6314)				18108396, 264259, 29331826, 35696052, 29146498, 87168559, 265017, 264448, 264288, 264691, 18108386, 52645129, 35696423, 52644332
3158	80034118 (6315, 6316)	Novel Protein sim. GBank gi 5306064 gb AAD41895.1 AF15677 - (AF156778) ASB-3 protein [Homo sapiens]	Contains protein domain (PF00023) - kinase Ank repeat	kinase	264488, 263974
3159	94124114 (6317, 6318)	Novel Protein sim. GBank gi 5531272 emb CAB50887.1  - (AJ243800) WSC4 homologue [Kluyveromyces fragilis]	UNCLASSIFIED		56182575, 22278998, 29331824, 264106, 60433356, 264758, 265011, 87168559, 264448, 18108354, 264768, 21908768, 265020, 264691, 264692, 33657109, 18108374, 35696423, 264555, 60170394, 22279000
3160	80221068 (6319, 6320)	Novel Protein sim. GBank gi 3930525 AF064447 - sex-determination protein homolog Fem1a [Mus musculus]	Contains protein domain (PF00023) - struct Ank repeat	struct	18108351, 264555, 264556, 264557, 264558, 264559

3161	8807411 (6321, 6322)				264488, 2227895, 2227897, 2227898, 264259, 2933182, 6043228, 2933182, 5264404, 265017, 265018, 26448, 264288, 21806794, 21806787, 265020, 18108374, 264636, 264558
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Table 2

Tissue ID	Tissue Name	Tissue Information	Disease Association
20281069	192xN	Protein-protein Interactions	Any
20281071	192xN	Protein-protein Interactions	Any
20281149	192xN	Protein-protein Interactions	Any
20281152	192xN	Protein-protein Interactions	Any
264111	276xN	Protein-protein Interactions	Any
264112	276xN	Protein-protein Interactions	Any
263966	384xN	Protein-protein Interactions	Any
263967	384xN	Protein-protein Interactions	Any
264110	552xN	Protein-protein Interactions	Any
18108379	SPH 52.1 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
18108381	SPH 52.2 (Fetal Lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
18108383	SPH 52.3 (B's Lymphoma- Raji)	Lymphoma derived from B cells	Blood cancers, hematopoiesis, leukemia
18108368	SPH 52.5 (Salivary Gland)	Salivary Gland	Dry mouth, infection
18108384	SPH 52.6 (Brain- Thalamus)	Thalamus	Brain cancer, head injury, obesity, neurological disorders, neuropsychiatric disorders
18108394	SPH 53.1 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
18108355	SPH 53.2 (Fetal Lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
18108359	SPH 53.3 (B's Lymphoma- Raji)	Lymphoma derived from B cells	Blood cancers, hematopoiesis, leukemia
18108361	SPH 53.4 (Mammary Gland)	Mammary Gland	Lactation disorders, breast cancer
18108362	SPH 53.5 (Salivary Gland)	Salivary Gland	Dry mouth, infection
18108366	SPH 53.6 (Brain- Thalamus)	Thalamus	Brain cancer, head injury, obesity, neurological disorders, neuropsychiatric disorders
18108354	SPH 54.1 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
18108392	SPH 54.2 (Fetal Lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
18108348	SPH 54.3 (B's Lymphoma- Raji)	Lymphoma derived from B cells	Blood cancers, hematopoiesis, leukemia
18108382	SPH 54.4 (Mammary Gland)	Mammary Gland	Lactation disorders, breast cancer
18108395	SPH 54.5 (Salivary Gland)	Salivary Gland	Dry mouth, infection
18108365	SPH 54.6 (Brain- Thalamus)	Thalamus	Brain cancer, head injury, obesity, neurological disorders, neuropsychiatric disorders
18108397	SPH 55.1 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
18108398	SPH 55.2 (Fetal Lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
18108364	SPH 55.3 (B's Lymphoma- Raji)	Lymphoma derived from B cells	
18108388	SPH 55.4 (Mammary Gland)	Mammary Gland	Lactation disorders, breast cancer
18108358	SPH 55.5 (Salivary Gland)	Salivary Gland	Dry mouth, infection
20281099	SPH 56.2 (MG63)		
20281100	SPH 56.3 (U1SMC1)		
264404	SPH.1 (Brain)	Whole Brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection



264510	SPH.10 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264511	SPH.11 (Placenta)	Placenta	Infertility, birth defects
264512	SPH.12 (Thyroid)	Thyroid	Hyperparathyroidism, Hypoparathyroidism
264555	SPH.13 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264556	SPH.14 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264557	SPH.15 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264558	SPH.16 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264559	SPH.17 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264569	SPH.19 (One Fetal tissue and two cell lines)	Mixed	
264687	SPH.19.1 (fetal thymus - CRL7046)	Fetal Thymus	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, immunodeficiencies
264688	SPH.19.2 (hematopoietic stem cells - CRL2043)	Hematopoietic stem cells	Leukemia, osteoporosis, post-chemotherapeutic stem cell repopulation
264689	SPH.19.3 (osteogenic sarcoma cell lines - HTB96)	Osteogenic Sarcoma	Sarcomas, osteoporosis, osteopetrosis
264690	SPH.19.4 (Fetal Liver)	Fetal liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
264691	SPH.19.5 (Heart)	Heart	Cardiomyopathy, Atherosclerosis, Hypertension, Congenital heart defects, Aortic stenosis, Atrial septal defect (ASD), Atrioventricular (A-V) canal defect, Ductus arteriosus, Pulmonary stenosis, Subaortic stenosis, Ventricular septal defect (VSD), valve diseases, Tuberous sclerosis, Scleroderma, Obesity, Transplantation
264692	SPH.19.6 (Spleen)	Spleen	Hemophilia, Hypercoagulation, Idiopathic thrombocytopenic purpura, Immunodeficiencies, Graft versus host
264693	SPH.19.7 (Pituitary)	Pituitary	Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264482	SPH.2 (Brain)	Brain	Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection

264600	SPH.21 (Fetal Brain)	Fetal brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264601	SPH.22 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264602	SPH.23 (Thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
264603	SPH.24 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264604	SPH.25 (Lymph Node)	Lymph Node	Lymphedema , Allergies
264605	SPH.26 (Placenta)	Placenta	Infertility, birth defects
264634	SPH.28 (Heart)	Heart	Cardiomyopathy, Atherosclerosis, Hypertension, Congenital heart defects, Aortic stenosis ,Atrial septal defect (ASD), Atrioventricular (A-V) canal defect, Ductus arteriosus , Pulmonary stenosis , Subaortic stenosis, Ventricular septal defect (VSD), valve diseases, Tuberous sclerosis, Scleroderma, Obesity, Transplantation
264635	SPH.29 (Fetal Kidney)	Fetal Kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
264483	SPH.3 (Bone Marrow)	Bone marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264636	SPH.30 (Lymph Node)	Lymph Node	Lymphedema , Allergies
264637	SPH.31 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264638	SPH.32 (Thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
264639	SPH.33 (Fetal Brain)	Fetal brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264484	SPH.4 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264758	SPH.44.1 (Kidney)	Kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
264760	SPH.44.2 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation

264762	SPH.44.3 (Heart)	Heart	Cardiomyopathy, Atherosclerosis, Hypertension, Congenital heart defects, Aortic stenosis, Atrial septal defect (ASD), Atrioventricular (A-V) canal defect, Ductus arteriosus, Pulmonary stenosis, Subaortic stenosis, Ventricular septal defect (VSD), valve diseases, Tuberous sclerosis, Scleroderma, Obesity, Transplantation
264764	SPH.44.4 (Prostate)	Prostate	Prostate Cancer
264766	SPH.44.5 (Spleen)	Spleen	Hemophilia, Hypercoagulation, Idiopathic thrombocytopenic purpura, Immunodeficiencies, Graft versus host
264768	SPH.44.6 (pituitary)	Pituitary	Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264769	SPH.44.7 (Uterus)	Uterus	Infertility, birth defects
264905	SPH.48.1 (Burkitt's Lymphoma- Raji)	Burkitt's Lymphoma	Lymphoma, blood cancers
264906	SPH.48.2 (Thalamus- Brain)	Thalamus	Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264907	SPH.48.3 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy, Congenital Adrenal Hyperplasia,
264908	SPH.48.4 (Fetal Lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
264909	SPH.48.5 (Salivary Gland)	Salivary Gland	Dry mouth, infection
264910	SPH.48.6 (Mammary Gland)	Mammary Gland	Lactation disorders, breast cancer
265006	SPH.50.1 (B's lymphoma)	Burkitt's Lymphoma	Lymphoma, blood cancers
265007	SPH.50.2 (thalamus)	Thalamus	Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
265008	SPH.50.3 (adrenal gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy, Congenital Adrenal Hyperplasia,
265009	SPH.50.4 (fetal lung)	Fetal Lung	Cystic Fibrosis, infection, lung cancer
265010	SPH.50.5 (salivary gland)	Salivary Gland	Dry mouth, infection
265011	SPH.50.6 (mammary gland)	Mammary Gland	Lactation disorders, breast cancer
18108385	SPH.51.1 (MCF-7)	Breast Cancer	Breast Cancer
18108370	SPH.51.2 (CCRF-CEM)	Cancer Cell line	Cancer
18108374	SPH.51.3 (K-562)	Cancer Cell line	Cancer
18108351	SPH.51.4 (OVCAR-3)	Ovarian cancer	Ovarian cancer
18108372	SPH.51.5 (HL-60)	Cancer Cell line	Cancer
264486	SPH.6 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,

264508	SPH.8 (Fetal Brain)		Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264509	SPH.9 (Lymph Node)	Lymph Node	Lymphedema , Allergies
20798451	SRH 56.3(UtSMC)		
264487	SRH.1 (Brain)	Brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264534	SRH.11 (Bone marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264535	SRH.12 (Bone marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264563	SRH.19 (Fetal Brain)	Fetal brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264488	SRH.2 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264564	SRH.20 (Lymph Node)	Lymph Node	Lymphedema , Allergies
264565	SRH.21 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264566	SRH.22 (Placenta)	Placenta	Infertility, birth defects
264567	SRH.23 (Thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
264591	SRH.25 (Fetal Brain)	Fetal brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264592	SRH.26 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264593	SRH.27(thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
264594	SRH.28 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264595	SRH.29 (Lymph Node)	Lymph Node	Lymphedema , Allergies
264489	SRH.3 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,

264596	SRH.30 (Placenta)	Placenta	Infertility, birth defects
264628	SRH.33 (fetal Kidney)	Fetal kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
264629	SRH.34 (lymph Node)	Lymph Node	Lymphedema , Allergies
264630	SRH.35 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
264631	SRH.36 (thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
264632	SRH.37 (Fetal Brain)	Fetal Brain	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264490	SRH.4 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
264681	SRH.43.1 (fetal thymus - CRL7046)	Fetal Thymus	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, immunodeficiencies
264682	SRH.43.2 (hematopoietic stem cells - CRL2043)	Hematopoietic stem cells	Leukemia, osteoporosis, post-chemotherapeutic stem cell repopulation
264683	SRH.43.3 (osteogenic sarcoma cell lines - HTB96)	Osteogenic Sarcoma	Sarcomas, osteoporosis, osteopetrosis
264684	SRH.43.4 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
264685	SRH.43.6 (Spleen)	Spleen	Hemophilia, Hypercoagulation, Idiopathic thrombocytopenic purpura , Immunodeficiencies, Graft versus host
264686	SRH.43.7 (pituitary)	Pituitary	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264757	SRH.44.1 (Kidney)	Kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
264759	SRH.44.2 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
264761	SRH.44.3 (Heart)	Heart	Cardiomyopathy, Atherosclerosis, Hypertension, Congenital heart defects, Aortic stenosis, Atrial septal defect (ASD), Atrioventricular (A-V) canal defect, Ductus arteriosus , Pulmonary stenosis , Subaortic stenosis, Ventricular septal defect (VSD), valve diseases, Tuberous sclerosis, Scleroderma, Obesity, Transplantation
264763	SRH.44.4 (Prostate)	Prostate	Prostate Cancer
264765	SRH.44.5 (Spleen)	Spleen	Hemophilia, Hypercoagulation, Idiopathic thrombocytopenic purpura , Immunodeficiencies, Graft versus host

264767	SRH.44.6 (Pituitary)	Pituitary	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
264828	SRH.46.1 (Lymph Node)	Lymph Node	Lymphedema , Allergies
264887	SRH.47.5 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
18108377	SRH.50.1 (B's lymphoma)	Burkitt's Lymphoma	Lymphoma, blood cancers
18108380	SRH.50.2 (thalamus)	Thalamus	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
18108396	SRH.50.3 (adrenal gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
18108391	SRH.50.4 (fetal lung)	Fetal Lung	Airway diseases, infection
18108357	SRH.50.5 (salivary gland)	Salivary Gland	Dry mouth, infection
18108390	SRH.50.6 (mammary gland)	Mammary Gland	Lactation disorders, breast cancer
264532	SRH.9 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
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263981	736xN		
20281166	96xN		
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20281171	96xN		
263994	cDNA-ORF Selection		
264080	Mx96		
21906754	NQH 6.1 (HH729)		
22278996	NQH 6.10 (PrEC)	Endothelial cells	heart disease, cancer
22278997	NQH 6.11 (CAEC)	Endothelial cells	heart disease, cancer
22278998	NQH 6.12 (CSC)	Cancer Cell line	Cancer
22278999	NQH 6.13 (NHNPC)	Cancer Cell line	Cancer
22279000	NQH 6.14 (NHMC-RM)	Cancer Cell line	Cancer
22279002	NQH 6.15 (Hypothalamus)	Hypothalamus	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection, Obesity
21906764	NQH 6.2 (In Dated Platelets)	Platelets	Clotting diseases, stroke
21906765	NQH 6.3 (HuVec)	Endothelial cells	heart disease, cancer
87168474	NQH 6.3 (Sized-HUVEC)	Endothelial cells	heart disease, cancer
21906766	NQH 6.4 (UIMVEC- myo)	Cancer Cell line	Cancer
21906767	NQH 6.5 (NHEM-neo)	Cancer Cell line	Cancer
21906768	NQH 6.6 (NHEK)	Cancer Cell line	Cancer
21906769	NQH 6.7 (ByCAEC)	Endothelial cells	heart disease, cancer
22278994	NQH 6.8 (NHA)	Cancer Cell line	Cancer

22278995	NQH 6.9 (PrSC)	Cancer Cell line	Cancer
27486261	NQH 7.1 (Jurkat E6-untreated)	Cancer Cell line	Cancer
27486262	NQH 7.2 (TF1-untreated)	Cancer Cell line	Cancer
27486264	NQH 7.3 (U87-untreated)	Cancer Cell line	Cancer
27486265	NQH 7.4 (THP1-untreated)	Cancer Cell line	Cancer
29331822	NQH 8.1 (Brain- amygdala)		Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
29331824	NQH 8.2 (Brain-hippocampus)		Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
29331825	NQH 8.3 (Brain- substantia nigra)		Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection
29331826	NQH 8.4 (small intestine)	Small intestine	digestive diseases, obesity, diabetes
29331827	NQH 8.5 (Spinal cord)	Spinal chord	paralysis, neurodegenerative disorders
29331828	NQH 8.6 (stomach)	Stomach	Stomach cancer
29331830	NQH 8.7 (Trachea)	Trachea	Airway diseases, infection
87168518	NQH 9.1 (Sized-MG-63_treatment pool)		
87168559	NQH 9.2 (Sized-HEPG2 untreated)		
35695763	NQH.10.1 (MCF-7untreated)	Cancer Cell line	Cancer
35695855	NQH.10.2 (U-937_treatment pool)	Cancer Cell line	Cancer
35695917	NQH.10.3 (JAR)	Cancer Cell line	Cancer
35696052	NQH.10.4 (PA-1)	Cancer Cell line	Cancer
35696286	NQH.10.5 (CADMEC)	Endothelial cells	heart disease, cancer
35696423	NQH.10.6 (CADMEC_LA)	Endothelial cells	heart disease, cancer
52644045	NQH.11.1 (SK-PN-DW)	Cancer Cell line	Cancer
52644150	NQH.11.2 (Chorionic Villus Cells)	Chorionic villus	fertility, birth defects
52644229	NQH.11.3 (A549)	Cancer Cell line	Cancer
52644296	NQH.11.4 (U266B1)	Cancer Cell line	Cancer
52644332	NQH.11.5 (Daoy)	Cancer Cell line	Cancer
52644507	NQH.11.6 (SW1783)	Cancer Cell line	Cancer
52645080	NQH.12.1 (U-118MG)	Cancer Cell line	Cancer
52645129	NQH.12.2 (A204)	Cancer Cell line	Cancer
52645156	NQH.12.3 (T24)	Cancer Cell line	Cancer
52646317	NQH.12.4 (G-401)	Cancer Cell line	Cancer
52646365	NQH.12.5 (CaSki)	Cancer Cell line	Cancer
52646842	NQH.12.6 (SHP-77)	Cancer Cell line	Cancer

60424179	NQH.14.1 (Yale75_breast carcinoma)	Breast carcinoma	Breast Cancer
60424269	NQH.14.2 (Yale78B_ovarytumor)	Ovary tumor	Ovarian cancer
60431528	NQH.14.3 (Yale79_prostateBPH)	Prostate	Prostate Cancer
60431602	NQH.14.4 (Yale80_ProstateAdenocarcinoma)	Prostate	Prostate Cancer
60431735	NQH.14.5 (Yale86_UterineMyoma)	Uterine Myoma	Uterine Cancer
60431850	NQH.14.6 (Yale207_Myometrium)	Myometrium	Fertility
60432049	NQH.15.1 (Yale99_cervix)	Cervix	Osteoporosis, cervical cancer
60432113	NQH.15.2 (Yale45_spleenITP)		Hemophilia, Hypercoagulation, Idiopathic thrombocytopenic purpura, Immunodeficiencies, Graft versus host
60432229	NQH.15.3 (Yale16_Skin)	Skin	wound healing, melanoma
60432289	NQH.15.4 (Yale137_Parotid)		
60433356	NQH.15.5 (Yale38_SmallIntestine)	Small intestine	digestive diseases, obesity, diabetes
60433438	NQH.15.6 (Yale28_ColonAscending)	Colon	Colon cancer
65274444	NQH.17.1 (Larynx)	Larynx	Cancer
65274572	NQH.17.2 (Duodenum)	Duodenum	
65274620	NQH.17.3 (Kidney, Primary tumors)		Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
65274727	NQH.17.4 (Lung Pleura, normal)	Lung	Airway diseases, infection
65274791	NQH.17.5 (Lung, Normal Adult)	Lung	Airway diseases, infection
83373044	NQH.18.230 (Pooled adrenal gland, placenta)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy, Congenital Adrenal Hyperplasia,
85658542	NQH.18.560 (Pooled uterus, BeWo pool)	Uterus	Infertility, birth defects
33656970	NQH.9.1 (MG-63_treatment pool)	Cancer Cell line	Cancer
33657023	NQH.9.2 (HEPG2 untreated)		Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
33657084	NQH.9.3 (PC3 untreated)	Cancer Cell line	Cancer
33657109	NQH.9.4 (TF-1_TPA)	Cancer Cell line	Cancer
33657182	NQH.9.5 (TF-1_TPO)	Cancer Cell line	Cancer
33657349	NQH.9.6 (TF-1_Hemin)	Cancer Cell line	Cancer
33657402	NQH.9.7 (HFDPC)	Cancer Cell line	Cancer
264259	NQH1 (Mixture of eight adult & two fetal tissues)		
264288	NQH2 (Ten tissues plus lymphocyte control)		
264448	NQH3 (Bone Marrow)	Bone Marrow	Hemophilia, hypercoagulation, Idiopathic thrombocytopenic purpura, autoimmune disease, allergies, immunodeficiencies, transplantation, Graft versus host,
265017	NQH4.1 (lymph node)	Lymph Node	Lymphedema, Allergies



265018	NQH4.2 (fetal kidney)	Fetal Kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
66712502	NQH4.2 (Sized)		
265019	NQH4.3 (pituitary gland)		Von Hippel-Lindau (VHL) syndrome, Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection, Obesity
66714117	NQH4.3 (Sized)		
265020	NQH4.4 (testis)	testis	Infertility, birth defects
265021	NQH4.5 (fetal liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
265022	NQH4.6 (thyroid)	Thyroid	Hyperthyroidism and Hypothyroidism
18108376	NQH5.1 (MCF-7)	Breast cancer	Breast Cancer
18108387	NQH5.2 (CCRF-CEM)	Cancer Cell line	Cancer
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263975	ORFSEL		
263972	OTHER Baits		
263978	pGALORF		
264106	PPBAITS		
264088	QC-YA7		
264089	QC-YA8		
264102	Resequenced Interactors		
264369	RRH.1		
60170394	RRH.10.1 (MCF-7untreated)	Breast cancer	Breast Cancer
60170615	RRH.10.2 (U-937_treatment pool)	Cancer Cell line	Cancer
60170831	RRH.10.3 (JAR)	Cancer Cell line	Cancer
60174639	RRH.11.8 (HeLa)	Cancer Cell line	Cancer
264113	rrQEA Baits		
263973	RRQEA_B5 baits		
29146498	SRD 3.1 (SKMC)	Cancer Cell line	Cancer
29146499	SRD 3.2 (SKMC)	Cancer Cell line	Cancer
29147620	SRD 3.3 (RPTEC)	Cancer Cell line	Cancer
29148627	SRD 3.4 (HRCE)	Cancer Cell line	Cancer
29148629	SRD 3.6 (HRE)	Cancer Cell line	Cancer
29148784	SRD 3.7 (HRE)	Cancer Cell line	Cancer
55810764	SRD.7.1 (Lymph Node)	Lymph Node	Lymphedema, Allergies
55811150	SRD.7.2 (pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
55811386	SRD.7.3 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy, Congenital Adrenal Hyperplasia,

55811576	SRD.7.4 (Pituitary Gland)	Pituitary	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection, Obesity
55811957	SRD.7.5 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
55812038	SRD.7.6 (Fetal Kidney)	Fetal kidney	Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
56181562	SRD.8.1 (Lymph Node)	Lymph Node	Lymphedema , Allergies
56181686	SRD.8.2 (Pancreas)	Pancreas	Pancreatitis, diabetes, pancreatic cancer
56182181	SRD.8.3 (Adrenal Gland)	Adrenal Gland/Suprarenal gland	Adrenoleukodystrophy , Congenital Adrenal Hyperplasia,
56182323	SRD.8.4 (Pituitary Gland)	Pituitary	Von Hippel-Lindau (VHL) syndrome , Alzheimer's disease, Stroke, Tuberous sclerosis, hypercalcaemia, Parkinson's disease, Huntington's disease, Cerebral palsy, Epilepsy, Lesch-Nyhan syndrome, Multiple sclerosis, Ataxia-telangiectasia, Leukodystrophies, Behavioral disorders, Addiction, Anxiety, Pain, Neuroprotection, Obesity
56182435	SRD.8.5 (Fetal Liver)	Fetal Liver	Von Hippel-Lindau (VHL) syndrome, Cirrhosis, Transplantation
56182575	SRD.8.6 (Fetal Kidney)		Diabetes, Autoimmune disease, Renal artery stenosis, Interstitial nephritis, Glomerulonephritis, Polycystic kidney disease, Systemic lupus erythematosus, Renal tubular acidosis, IgA nephropathy, Hypercalcaemia, Lesch-Nyhan syndrome
32833986	SRD4: HL adapter		
56526486	SRD5.1:rr fragments		
33109954	SRD5: long-RXRJ		
56994075	SRD9.1 (CS/SC)	Cancer Cell line	Cancer
263977	TSC Screen 1		

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           20           25           30
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           35           40           45
Leu Cys Ala Leu Leu Leu Phe Trp Leu Cys Val Tyr His Gly Ile Arg
           50           55           60
Val Gln Gly Glu Arg Lys Cys Leu Thr Phe Tyr Leu Pro Lys Phe Phe
65           70           75           80
Ile Val Gly Leu Leu Trp Leu Ala Ser Val Thr Leu Gly Ile Trp Gln
           85           90           95
Thr Val Asn Glu Leu His Asp Pro Met Tyr Gln Tyr Arg Val Asp Thr
           100          105          110
Gly Asn Phe Gln Gly Met Lys Val Phe Phe Met Val Val Ala Ala Val
           115          120          125
Tyr Ile Leu Tyr Leu Leu Phe Leu Ile Val
           130          135

```

<210> 11

<211> 453

<212> DNA

<213> Homo sapiens

<400> 11

```

cttaagaatc gcctcactca acggtcagct tgccgaccat gcccgcctga taatgccccg
60
gaatgttgca ggcaaaactca agaccgggtg ccttggtgaa ggtccaggtc agctcggcgg
120
acttgccccg ctgcaccagc acgctgttgg ggctcgtcatg cttcatgccg cccatatcgc
180
catgccccat ggcggcgtgg tccatcttgc ccatgccggg ggccgtgagc atgccgctgg
240
cttgcatctt gagcatttct ttctggtgtt cggcgtgcat cgccgcatca cccagattga
300
attcgtgcag taactggcct ttgttgacca gcacaaagcg cacggtctca ccggctttta
360
catccagagc cttgggcgaa aaggaaatgt cctgcagggt gacttccacg gtgcgcgtgg
420
ctttatcggc cggtgccggg tggccaaacg cgt
453

```

<210> 12

<211> 130

<212> PRT

<213> Homo sapiens

<400> 12

```

Met Leu Gln Ala Asn Ser Arg Pro Val Ala Leu Val Lys Val Gln Val
 1           5           10           15
Ser Ser Ala Asp Leu Pro Gly Ser Thr Ser Thr Leu Leu Gly Ser Ser

```



```

      20      25      30
Cys Phe Met Pro Pro Ile Ser Pro Cys Pro Met Ala Ala Trp Ser Ile
      35      40      45
Leu Pro Met Pro Val Ala Val Ser Met Pro Leu Ala Cys Ile Leu Ser
      50      55      60
Ile Ser Phe Trp Cys Ser Ala Cys Ile Ala Ala Ser Pro Arg Leu Asn
65      70      75      80
Ser Cys Ser Asn Trp Pro Leu Leu Thr Ser Thr Lys Arg Thr Val Ser
      85      90      95
Pro Ala Phe Thr Ser Arg Ala Leu Gly Glu Lys Glu Met Ser Cys Arg
      100      105      110
Val Thr Ser Thr Val Arg Val Ala Leu Ser Ala Gly Ala Gly Trp Pro
      115      120      125
Asn Ala
      130

```

<210> 13  
 <211> 2034  
 <212> DNA  
 <213> Homo sapiens

```

<400> 13
nacgcgttcg gcgtagtcgc cttcctgccg tccgtcctga gctccctgct gcccggtgctg
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ggcgtgggcca agcaggacac ggtgcgcgtg gccttctgct ccggggacct gcggtccttc
120
tgggcccctac catgctggca ttttctccca tgtgtcaaac acatgggttc agccagcgaa
180
gattccatgg gacctcctcg tgtgggacgt gtgtcccca ccacaaatgg aacgttcctc
240
gtttgcatct ggaggggttg gtggtcctgc tggctggagc agcctggggc cagaggaagc
300
cgtatcaacc ggctctgcag cgcttcagcg aggggtgcct ggagtaccta gccaacctgg
360
accgagcccc agacccacg gtcaggaagg acgcctttgc caccgacatc ttcagcgcct
420
acgatgttct cttccatcag tggctgcaga gtcgagaagc caagctccgt cttgccgtgg
480
tggaggtctt ggggcctatg agccatctgc tgcccagtga gaggttgaa gagcagctgc
540
ccaagctcct ccctgggatt ctgcctctct acaagaagca cgagagacc ttctacttgt
600
ccaagagcct gggccagatc ctcgaggcag ctgtgagtgt gggcagccgc aactggaga
660
cccagctgga tgccctcttg gctgcactgc actcccagat ctgtgtgcct gtggagtcct
720
caagccccct ggtgatgagt aaccagaagg aggtgctgcg ctgcttcact gtgctggcct
780
gcagctcgcc tgaccgcta ctggccttcc tgctgccag gctggacacc accaatgaga
840
ggacccgct gggcaccctg cagggggcca aacatgtcat caactcaact gctgctcaa
900
tggaagataa aaagccctt atcctgtctt ccatgaggct tcctctcctg aacaccaaca
960

```

gcaaggtgaa gcgggcagtg gtgcaggtga ttagcgccca tggcccacca cggtacctg  
 1020  
 gagcagcctg gaggtgagge gatgatcgag taaatcgtgc agcagtgcgc gctgcccccc  
 1080  
 gagcaggagc ctgagaagcc agggccccgc agcaaggacc ccaaggccga cagcgtgcgg  
 1140  
 gccatcagcg tgcgcaccct ctacctggtc agcaccaccg tggacaggat gagtcacgtc  
 1200  
 ctctggccat acctgctcca gttcctcacc cctgtgcgct tcaactggggc cctgactccg  
 1260  
 ctctgcagga gcctcgtgca tctggcgagc aagaggcagg aggcgggggc cgacgccttc  
 1320  
 ctcatccagt acgacgcccc tgcgagcctc ccgtctccct atgctgtaac cggaagactg  
 1380  
 ttggttgtgt cttccagccc ctacctaggg gacggacgtg gggcagcggc gctgcgcctc  
 1440  
 ctcagtgttc tgcacccaaa cattcacctt ttgctgggtc agcattggga aacgactgtc  
 1500  
 ccgtcgtgc tggggtacct ggatgagcac acagaagaga ccctgccaca ggaggagtgg  
 1560  
 gaggagaagc tgttgatggt gagggccggg gtacggcccc tcctgggcct taagggtgtg  
 1620  
 tctggcctgg ggggtgctgg ggtggcagag gctgggccac ctgcctcgac ctacactcgt  
 1680  
 ggtttggctg gggagccaag gatcaggcag catcaaggct gaagacccca gcagccttgc  
 1740  
 agcggggggc ttgctgtgac aaggcaccgg ccctctagca gtcgcagccc caagcgtcgg  
 1800  
 gggcaacctc tcacctgcc tggtagacca actgtggcat ggctgtcccc tgagggttgg  
 1860  
 ctctgccgcc cccggcctcc gctggaaggc ggtctgcagc ccctgcagcc acagcacatg  
 1920  
 gggatgtgcc caggctccag ccagccctgt gaggggtcgg gctcccagcc cctcagtggc  
 1980  
 atcttggcct gcagttcctg cgagacaccc tggccatcat ttctgacaac gcgt  
 2034

<210> 14

<211> 222

<212> PRT

<213> Homo sapiens

<400> 14

Ile	Val	Gln	Gln	Cys	Ala	Leu	Pro	Pro	Glu	Gln	Glu	Pro	Glu	Lys	Pro
1				5					10					15	
Gly	Pro	Gly	Ser	Lys	Asp	Pro	Lys	Ala	Asp	Ser	Val	Arg	Ala	Ile	Ser
			20					25						30	
Val	Arg	Thr	Leu	Tyr	Leu	Val	Ser	Thr	Thr	Val	Asp	Arg	Met	Ser	His
		35					40					45			
Val	Leu	Trp	Pro	Tyr	Leu	Leu	Gln	Phe	Leu	Thr	Pro	Val	Arg	Phe	Thr
	50					55				60					
Gly	Ala	Leu	Thr	Pro	Leu	Cys	Arg	Ser	Leu	Val	His	Leu	Ala	Gln	Lys
	65				70					75				80	
Arg	Gln	Glu	Ala	Gly	Ala	Asp	Ala	Phe	Leu	Ile	Gln	Tyr	Asp	Ala	His

```

      85      90      95
Ala Ser Leu Pro Ser Pro Tyr Ala Val Thr Gly Arg Leu Leu Val Val
      100      105      110
Ser Ser Ser Pro Tyr Leu Gly Asp Gly Arg Gly Ala Ala Ala Leu Arg
      115      120      125
Leu Leu Ser Val Leu His Pro Asn Ile His Pro Leu Leu Gly Gln His
      130      135      140
Trp Glu Thr Thr Val Pro Leu Leu Leu Gly Tyr Leu Asp Glu His Thr
      145      150      155      160
Glu Glu Thr Leu Pro Gln Glu Glu Trp Glu Glu Lys Leu Leu Met Val
      165      170      175
Arg Ala Gly Val Arg Pro Ile Leu Gly Leu Lys Val Leu Ser Gly Leu
      180      185      190
Gly Gly Ala Gly Val Ala Glu Ala Gly Pro Pro Ala Ser Thr Ser Pro
      195      200      205
Arg Gly Leu Ala Gly Glu Pro Arg Ile Arg Gln His Gln Gly
      210      215      220

```

<210> 15  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

```

<400> 15
naccgcttgc tggctcgcca cggcaagggc catgtcggct gcgatatctg caagccggcg
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gtgggttcga tccttgccctc gtgctggaac cagccgatca tggaccgggc gttggtgccg
120
ttgcaggaca ccaatgacac cttcatggcc aacatgcaga agaacgggtac ctattcgatc
180
atccccgcgta tcgccggcgg cgagatcacc ccggacaaac tgatcgccct cggcgcgggtg
240
gcgaagaaat acgatctgta caccaagatc accggcggcc agcggatcga cctgttcggc
300
gcccgattgc acgaattgcc gcagatctgg ggcgagctgg tggatgccgg attcgagacc
360
ggt
363

```

<210> 16  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

```

<400> 16
Xaa Ala Leu Leu Ala Arg His Gly Lys Gly His Val Gly Cys Asp Ile
1      5      10      15
Cys Lys Pro Ala Val Gly Ser Ile Leu Ala Ser Cys Trp Asn Gln Pro
20     25     30
Ile Met Asp Pro Ala Leu Val Pro Leu Gln Asp Thr Asn Asp Thr Phe
35     40     45
Met Ala Asn Met Gln Lys Asn Gly Thr Tyr Ser Ile Ile Pro Arg Ile
50     55     60
Ala Gly Gly Glu Ile Thr Pro Asp Lys Leu Ile Ala Leu Gly Ala Val

```

```

65          70          75          80
Ala Lys Lys Tyr Asp Leu Tyr Thr Lys Ile Thr Gly Gly Gln Arg Ile
      85          90          95
Asp Leu Phe Gly Ala Gln Leu His Glu Leu Pro Gln Ile Trp Gly Glu
      100        105        110
Leu Val Asp Ala Gly Phe Glu Thr Gly
      115          120

```

<210> 17  
 <211> 682  
 <212> DNA  
 <213> Homo sapiens

```

<400> 17
gaattccatt ttgtggagta agaggtgact ggggtatagg gtacaacca tagccatcca
60
tgttcatctt tgttttgaat ataattggct agaagatata catatatcta tgtaacttcc
120
tctagcatcc tccagtatgg aggctgcatt aagactgcat gaaggagagg gagagaaggg
180
agaaacagag cagctggaca agaggacagg tatagggaat aagggagaag ccagtaaggc
240
aggaaagacc ctccgtgaca aaggggcagg gaacagaact caaacattta atggcaggta
300
accagggtta gaatggtaaa ttgaaagggtg aatataaagg gagaatgggtg aaatgaattt
360
tctgaaatta attgctgtgt ttatagtttt tagccatgca tcggaatcac ctcaggactc
420
cactcccaat caattatata tctgggggag gaccaaggcg ttggtatttt tcagaagctc
480
cactggtgat tctgacagca cagctaggat taagaaactg atcaatggga acagcatgcc
540
tggtgcagag gagcttcctt gggaaatgtc acacacagaa catcaatctt ccttccccac
600
tcttgagatc cctcattctt tggcaccagg aacagttgca attagtaaac cctgggtccc
660
tgctgtctca caaatcgcaa ga
682

```

<210> 18  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

```

<400> 18
Met Asn Phe Leu Lys Leu Ile Ala Val Phe Ile Val Phe Ser His Ala
  1          5          10          15
Ser Glu Ser Pro Gln Asp Ser Thr Pro Asn Gln Leu Tyr Ile Trp Gly
      20          25          30
Arg Thr Lys Ala Leu Val Phe Phe Arg Ser Ser Thr Gly Asp Ser Asp
      35          40          45
Ser Thr Ala Arg Ile Lys Lys Leu Ile Asn Gly Asn Ser Met Pro Val
      50          55          60
Ala Glu Glu Leu Pro Trp Glu Met Ser His Thr Glu His Gln Ser Ser

```

```

65          70          75          80
Phe Pro Thr Pro Glu Ile Pro His Ser Leu Ala Pro Gly Thr Val Ala
          85          90          95
Ile Ser Lys Pro Trp Phe Pro Ala Val Ser Gln Ile Ala Arg
          100          105          110

```

<210> 19  
 <211> 515  
 <212> DNA  
 <213> Homo sapiens

```

<400> 19
cttggctggc agacatggga cctgcttccc tcttacaccc cagtcttggc aaggatcatg
60
cccccatctc aactatgtta gccagtctgg ctgttcactt agtcactaca gtttgcttct
120
cgtctgcagt gcagtcttgg gctataagaa acactgggcc actcaatacc tcccccttt
180
tggcccttct cctcctctgg tccatgggtg gggttggggg gagcccagtt tcagcaccag
240
cagctggagc ccataccaca ctcatcttct agttctggct gtgggagccc ctcccacagg
300
tttcagttcc ccaagcccca ggctgagtt tttttattg caaaagctgg ttgttgtgt
360
ggctagctcc caggcgtgtg aggtgcagct tgctaagtaa gagctaggaa agagaatagg
420
gtcctgctgt aggtgtccag tctgaaggaa tgctgggat acttctctaa gcagttcctt
480
ctcacagtct cctggctgct ccgcatgtca gatct
515

```

<210> 20  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

```

<400> 20
Met Gly Pro Ala Ser Leu Leu His Pro Ser Leu Gly Lys Asp His Ala
1          5          10          15
Pro Ile Ser Thr Met Leu Ala Ser Leu Ala Val His Leu Val Thr Thr
          20          25          30
Val Cys Phe Ser Ser Ala Val Gln Ser Trp Ala Ile Arg Asn Thr Gly
          35          40          45
Pro Leu Asn Thr Ser Pro Leu Leu Ala Leu Leu Leu Trp Ser Met
50          55          60
Gly Gly Val Gly Gly Ser Pro Val Ser Ala Pro Ala Ala Gly Ala His
65          70          75          80
Thr Thr Leu Ile Phe Gln Phe Trp Leu Trp Glu Pro Leu Pro Gln Val
          85          90          95
Ser Val Pro Gln Ala Pro Gly Leu Ser Phe Phe Tyr Cys Lys Ser Trp
          100          105          110
Leu Leu Leu Trp Leu Ala Pro Arg Arg Val Arg Cys Ser Leu Leu Ser
115          120          125
Lys Ser

```

130

&lt;210&gt; 21

&lt;211&gt; 390

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

gtgcgcacaa aagagcacgt tcgcaagggg aggaagagcg tgccaccggt tctgccgagc  
 60  
 tagacgcggt gcctatgggt gcggaggacc atggagtga gcgagtaaga ctagatgatg  
 120  
 caacaaatgt gcctgagggg gaaatggcac gagccagtgc caatgagggc atgacacctg  
 180  
 ttaaccacga caaataccct tctgtccttt taaatgaagc ggcccaggct tcattactgg  
 240  
 atacaatgac tgcttgca ct gatgggttca caattgagca attggagctt acacgatctc  
 300  
 tatgttatga aagagtatta gcacatcgat cctcatggga tcgttcagcc ctgggtcaag  
 360  
 aattaaagca agttgtccaa ggcattccatn  
 390

&lt;210&gt; 22

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 22

Met	Val	Ala	Glu	Asp	His	Gly	Val	Lys	Arg	Val	Arg	Leu	Asp	Asp	Ala
1				5					10					15	
Thr	Asn	Val	Pro	Glu	Gly	Glu	Met	Ala	Arg	Ala	Ser	Ala	Asn	Glu	Gly
			20					25					30		
Met	Thr	Pro	Val	Asn	His	Asp	Lys	Tyr	Pro	Ser	Val	Leu	Leu	Asn	Glu
			35				40					45			
Ala	Ala	Gln	Ala	Ser	Leu	Leu	Asp	Thr	Met	Thr	Ala	Cys	Thr	Asp	Gly
	50					55					60				
Phe	Thr	Ile	Glu	Gln	Leu	Glu	Leu	Thr	Arg	Ser	Leu	Cys	Tyr	Glu	Arg
65					70					75				80	
Val	Leu	Ala	His	Arg	Ser	Ser	Trp	Asp	Arg	Ser	Ala	Leu	Ala	Gln	Glu
				85					90					95	
Leu	Lys	Gln	Val	Val	Gln	Gly	Ile	His							
			100					105							

&lt;210&gt; 23

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

ntctcggagg ccgacagcct ggccgggctgg aagccctcgg tgtaccacgt gctgctcatc  
 60  
 ctgggcctgt tcgccgtgct gctgtcctgc tgcgcctcgg ccatgtacac cagcgtggag  
 120

ggctgggact acgtggactc gctctacttc tgcttcgtca ccttcagcac catcggcttc  
 180  
 ggggacctgg tgagcagcca gcacgccgcc taccggaacc aggggctcta ccgctggggc  
 240  
 aacttctctt tcatectgct cggcgtgtgc tgcatttact cgctcttcaa cgtcatctcc  
 300  
 atcctcatca agcaggtgct caactggatg ctgcgcaagc tgagctgccg ctgctgcgcg  
 360  
 cgctgctgcc cggctcctgg cgcgc  
 385

<210> 24

<211> 128

<212> PRT

<213> Homo sapiens

<400> 24

Xaa	Ser	Glu	Ala	Asp	Ser	Leu	Ala	Gly	Trp	Lys	Pro	Ser	Val	Tyr	His
1			5					10						15	
Val	Leu	Leu	Ile	Leu	Gly	Leu	Phe	Ala	Val	Leu	Leu	Ser	Cys	Cys	Ala
			20					25					30		
Ser	Ala	Met	Tyr	Thr	Ser	Val	Glu	Gly	Trp	Asp	Tyr	Val	Asp	Ser	Leu
		35					40					45			
Tyr	Phe	Cys	Phe	Val	Thr	Phe	Ser	Thr	Ile	Gly	Phe	Gly	Asp	Leu	Val
	50					55					60				
Ser	Ser	Gln	His	Ala	Ala	Tyr	Arg	Asn	Gln	Gly	Leu	Tyr	Arg	Leu	Gly
65				70					75					80	
Asn	Phe	Leu	Phe	Ile	Leu	Leu	Gly	Val	Cys	Cys	Ile	Tyr	Ser	Leu	Phe
			85					90						95	
Asn	Val	Ile	Ser	Ile	Leu	Ile	Lys	Gln	Val	Leu	Asn	Trp	Met	Leu	Arg
		100					105						110		
Lys	Leu	Ser	Cys	Arg	Cys	Cys	Ala	Arg	Cys	Cys	Pro	Ala	Pro	Gly	Ala
	115						120					125			

<210> 25

<211> 337

<212> DNA

<213> Homo sapiens

<400> 25

ccatgggaga gaccgtgcat tttcttctag gtctgcgtgg gaagtcactg cagagtttcg  
 60  
 aggaggggag ttcccagctc tgtatttttg aagggtcagt cttgttgctt ggaccagtga  
 120  
 ggagccccgt gggatccaga ctcgagtggg tggagccggg gcaggtggga gcagagacac  
 180  
 tggaggaaag ctggtcgaat gcactgtgta tttggaggca gaaccagcag agggtcctct  
 240  
 gggttgagtg tagggcaaaa gagaaagaag gcaccaagcc tggggtcttg gttttctctc  
 300  
 ttacacttgc tgggtggacg gtggtgccac tgaatga  
 337

<210> 26

<211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 26  
 Met Gly Glu Thr Val His Phe Leu Leu Gly Leu Arg Gly Lys Ser Leu  
 1 5 10 15  
 Gln Ser Phe Glu Glu Gly Ser Ser Gln Leu Cys Ile Phe Glu Gly Ser  
 20 25 30  
 Val Leu Leu Leu Gly Pro Val Arg Ser Pro Val Gly Ser Arg Leu Glu  
 35 40 45  
 Trp Val Glu Pro Gly Gln Val Gly Ala Glu Thr Leu Glu Glu Ser Trp  
 50 55 60  
 Ser Asn Ala Leu Cys Ile Trp Arg Gln Asn Gln Gln Arg Val Leu Trp  
 65 70 75 80  
 Val Glu Cys Arg Ala Lys Glu Lys Glu Gly Thr Lys Pro Gly Val Trp  
 85 90 95  
 Val Phe Ser Leu Thr Leu Ala Gly Trp Thr Val Val Pro Leu Asn  
 100 105 110

<210> 27  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 27  
 ccgacgtcga atatccatgc agccgcgccg aggatggaga gagcgatgga gcaactcaac  
 60  
 cgccctgacgc gctcgctgcg ccgcgcgcgc accgtggagt tgcccaggga taatgaaact  
 120  
 gctgtttata cattaatgcc aatggttatg gctgatcaac acaggtctgt ttctgaacta  
 180  
 ctatcaaat caaaatttga tgtcaattat gcattcggac gtgtgaaaag aagcttgctt  
 240  
 cacattgcag caaattgtgg atcgggtggaa tgcttggttt tgctgttaaa gaaaggagca  
 300  
 aatcctaact atcaagatat ttcaggctgt aca  
 333

<210> 28  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 28  
 Pro Thr Ser Asn Ile His Ala Ala Pro Arg Met Glu Arg Ala Met  
 1 5 10 15  
 Glu Gln Leu Asn Arg Leu Thr Arg Ser Leu Arg Arg Ala Arg Thr Val  
 20 25 30  
 Glu Leu Pro Glu Asp Asn Glu Thr Ala Val Tyr Thr Leu Met Pro Met  
 35 40 45  
 Val Met Ala Asp Gln His Arg Ser Val Ser Glu Leu Leu Ser Asn Ser  
 50 55 60  
 Lys Phe Asp Val Asn Tyr Ala Phe Gly Arg Val Lys Arg Ser Leu Leu



```

65          70          75          80
His Ile Ala Ala Asn Cys Gly Ser Val Glu Cys Leu Val Leu Leu Leu
          85          90          95
Lys Lys Gly Ala Asn Pro Asn Tyr Gln Asp Ile Ser Gly Cys Thr
          100          105          110

```

<210> 29  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

```

<400> 29
ncgccgtccg tgctggctat tatgacggcg ggtagcgacc agggcgagga ggtcaactcg
60
gagagctatt tgagcgccgt gacgccgctg agtcccaaag agattcgtca gctgccccgc
120
tacaatatca cgatcaagcg cgtcgtgaac atgacgggca agggccgcac gccgagctgg
180
tactcgctcg tcgtggctgg caatggctcg ggctcgtgg gctatggcga aggcaaagat
240
actaacatca gccgcgcgaa caaaaaggcg ttccacgccg cggtgaaaaa catggacttg
300
gtatcgggtcc accggtcgaa gagtggcgcc aacacgctcg agcccccggt cgaggggcgc
360
tgggggcgcta cgcgt
375

```

<210> 30  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

```

<400> 30
Xaa Pro Ser Val Leu Ala Ile Met Thr Ala Gly Ser Asp Gln Gly Glu
1          5          10          15
Glu Val Asn Ser Glu Ser Tyr Leu Ser Ala Val Thr Pro Leu Ser Pro
          20          25          30
Lys Glu Ile Arg Gln Leu Pro Arg Tyr Asn Ile Thr Ile Lys Arg Val
          35          40          45
Val Asn Met Thr Gly Lys Gly Arg Thr Pro Ser Trp Tyr Ser Leu Val
          50          55          60
Val Ala Gly Asn Gly Arg Gly Leu Val Gly Tyr Gly Glu Gly Lys Asp
65          70          75          80
Thr Asn Ile Ser Arg Ala Asn Lys Lys Ala Phe His Ala Ala Val Lys
          85          90          95
Asn Met Asp Leu Val Ser Val His Arg Ser Lys Ser Gly Ala Asn Thr
          100          105          110
Leu Glu Pro Pro Val Glu Gly Arg Trp Gly Ala Thr Arg
          115          120          125

```

<210> 31  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 31  
 accggtcttg gcctcagctt tgctctgaaa ttgaagtcgg tgccaaaagt ggggaagagc  
 60  
 gggagcaggc acttacgagc ctgcgcgtca gggatgcttc ctggggccct gagagtgcag  
 120  
 agattcctgg atccagagct gcggctgggc ggctgcagct gcgectggga gtgcagggct  
 180  
 cccgccctgc cagctcaaaa ggaaatgggg gctcctgcct gttcctggct cctggtggcc  
 240  
 ctgcagagtg cacaaaccta gccgcgcttc ctccactgca gcttacgtct ttgcagcagc  
 300  
 cactcccgat gggctgccac tgccatctgt gagaccataa tgtgtgcaat ttgagactca  
 360  
 tggcctgcat tgttt  
 375

<210> 32  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 32  
 Met Gln Ala Met Ser Leu Lys Leu His Thr Leu Trp Ser His Arg Trp  
 1 5 10 15  
 Gln Trp Gln Pro Ile Gly Ser Gly Cys Cys Lys Asp Val Ser Cys Ser  
 20 25 30  
 Gly Gly Ser Ala Ala Arg Phe Val His Ser Ala Gly Pro Thr Gly Ala  
 35 40 45  
 Arg Asn Arg Gln Glu Pro Pro Phe Pro Phe Glu Leu Ala Gly Arg Glu  
 50 55 60  
 Pro Cys Thr Pro Arg Arg Ser Cys Ser Arg Pro Ala Ala Ala Leu Asp  
 65 70 75 80  
 Pro Gly Ile Ser Ala Leu Ser Gly Ala Gln Glu Ala Ser Leu Thr Arg  
 85 90 95  
 Arg Leu Val Ser Ala Cys Ser Arg Ser Ser Pro Leu Leu Ala Pro Thr  
 100 105 110  
 Ser Ile Ser Glu Gln Ser  
 115

<210> 33  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 33  
 ccatgcagcc caaccgttgg cgataaagtc cgtttaggcg ataccaattt atgggcaacc  
 60  
 attgaacaag atttattaac caaaggatgat gagggtgaaat ttgggtggcgg taaaagtgtg  
 120  
 cgtgatggta tggcgcaaag cggcaccgca actcgcgaca atccaaatgt attggatttt  
 180  
 gtgattacca atgtgatgat cattgatgcc aaattaggca ttatcaaagc cgatattggg  
 240

attcgcgatg gtcgtattgt cggatcggga caagcaggta accctgacac catggatgac  
 300  
 gtcacgccaa acatgattat cggtgctagc acagaagtac ataacgggtgc a  
 351

<210> 34  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 34  
 Pro Cys Ser Pro Thr Val Gly Asp Lys Val Arg Leu Gly Asp Thr Asn  
 1 5 10 15  
 Leu Trp Ala Thr Ile Glu Gln Asp Leu Leu Thr Lys Gly Asp Glu Cys  
 20 25 30  
 Lys Phe Gly Gly Gly Lys Ser Val Arg Asp Gly Met Ala Gln Ser Gly  
 35 40 45  
 Thr Ala Thr Arg Asp Asn Pro Asn Val Leu Asp Phe Val Ile Thr Asn  
 50 55 60  
 Val Met Ile Ile Asp Ala Lys Leu Gly Ile Ile Lys Ala Asp Ile Gly  
 65 70 75 80  
 Ile Arg Asp Gly Arg Ile Val Gly Ile Gly Gln Ala Gly Asn Pro Asp  
 85 90 95  
 Thr Met Asp Asp Val Thr Pro Asn Met Ile Ile Gly Ala Ser Thr Glu  
 100 105 110  
 Val His Asn Gly Ala  
 115

<210> 35  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

<400> 35  
 nngctagctg caccaccacc tgttcacgca ggcagagcgg ccaccctca tggaagaaga  
 60  
 ggaatccact gtattgggca caggcttcct gctggacctt ggcaagcagg tgcttggtctg  
 120  
 gtaccaggaa gtccagcgtg tacctcagtg cgtcctcccg ataagtcctc tccaccacct  
 180  
 ggaacacctg gcccaacagg gtgggggctg ttgcctcaaa ggggtggatac agggcggcga  
 240  
 gagtgtctctg cacacagtc tccactggct caggctccat ggctcggcgc cgggcccgcgt  
 300  
 ccgaacgttg gtcggggcggg cggggccggg cgcgccaccg cctcccttca cgcgt  
 355

<210> 36  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 36  
 Xaa Leu Ala Ala Pro Pro Pro Val His Ala Gly Arg Ala Ala Thr Pro

```

      1           5           10           15
His Gly Arg Arg Gly Ile His Cys Ile Gly His Arg Leu Pro Ala Gly
      20           25           30
Pro Trp Gln Ala Gly Ala Trp Leu Val Pro Gly Ser Pro Ala Cys Thr
      35           40           45
Ser Val Arg Pro Pro Asp Lys Ser Ser Pro Pro Pro Gly Thr Pro Gly
      50           55           60
Pro Thr Gly Trp Gly Leu Leu Pro Gln Arg Val Asp Thr Gly Arg Arg
      65           70           75           80
Glu Cys Ser Ala His Ser Pro Pro Leu Ala Gln Ala Pro Trp Leu Gly
      85           90           95
Ala Gly Pro Arg Pro Thr Leu Gly Arg Ala Gly Gly Ala Gly Arg Ala
      100          105          110
Thr Ala Ser Leu His Ala
      115

```

<210> 37  
 <211> 492  
 <212> DNA  
 <213> Homo sapiens

```

<400> 37
acgcgtggcc ttcgtctgcc accaggaccg actcagcccc accgggtttc cggaccgcgc
60
gcaaccatga caaggcgcat gttgtgatct ggggtggattc cttctccgac atgctcgagg
120
gacgggatct ctcggcggtg gtcacgggtgc ttgccgagggc cggctatcgc ccacgggtcc
180
tcgccgacga cgtctgctgc ggggtgacgt ggatcactac cggtcagctc gacggtgctc
240
ggcgctcggt gcgcgctggt ctgcacgtgc tggcaccctt gtcagacgcc agcgccccag
300
tcgttgggct agagccgtcc tgcactaccg tctggcgtaga tgacgcactc cgctctctgc
360
cagatgatcc gcgcgtccac cgggtagcca gaaacatgca taccgtcgcc gagatgcttg
420
aggcagcaca gtggacccca ccctcgctag caggccacac cctcgtcgct cagccccatt
480
gtcatccgcg gg
492

```

<210> 38  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

```

<400> 38
Met Leu Glu Gly Ser Asp Leu Ser Ala Val Val Thr Val Leu Ala Glu
1           5           10           15
Ala Gly Tyr Arg Pro Arg Val Leu Ala Asp Asp Val Cys Cys Gly Leu
      20           25           30
Thr Trp Ile Thr Thr Gly Gln Leu Asp Gly Ala Arg Arg Arg Leu Arg
      35           40           45
Ala Gly Leu Asp Val Leu Ala Pro Leu Ser Asp Ala Ser Val Pro Val

```

```

      50              55              60
Val Gly Leu Glu Pro Ser Cys Thr Thr Val Trp Arg Asp Asp Ala Leu
65              70              75              80
Arg Leu Leu Pro Asp Asp Pro Arg Val His Arg Val Ala Arg Asn Met
      85              90              95
His Thr Val Ala Glu Met Leu Glu Ala Ala Gln Trp Thr Pro Pro Ser
      100             105             110
Leu Ala Gly His Thr Leu Val Ala Gln Pro His Cys His Pro Ala
      115             120             125

```

<210> 39  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

```

<400> 39
aacgaaggtn ccgtacgcgc tctgaaagcc ctgcgttaaag agcgttccga tcgccgggaa
60
gtgatgngca ccgccaaaat gcaggtggtc gaagccgcga gttcaggcaa gattgtcttt
120
gaaatggaag acgtttatta cagcattgcc ggaaaacaac tggtagagcaa cttctctgcg
180
caagtcatgc gtggtgataa aattgcgctg attggcccga acggttggtg taaaacgacg
240
ttgctgaaac tgatgttaag taagattcag gcagacagcg gccgtgttca ctgcggtact
300
aaactggaag ttgcgtactt cgaccagcac cgtgctgagc tggatcctga gcgtacggtg
360
atggataacc tggccgaagg taagcaggaa gtgatggtaa atggccgtgt an
412

```

<210> 40  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

```

<400> 40
Asn Glu Gly Xaa Val Arg Ala Leu Lys Ala Leu Arg Lys Glu Arg Ser
1              5              10              15
Asp Arg Arg Glu Val Met Xaa Thr Ala Lys Met Gln Val Val Glu Ala
      20              25              30
Ala Ser Ser Gly Lys Ile Val Phe Glu Met Glu Asp Val Tyr Tyr Ser
      35              40              45
Ile Ala Gly Lys Gln Leu Val Ser Asn Phe Ser Ala Gln Val Met Arg
      50              55              60
Gly Asp Lys Ile Ala Leu Ile Gly Pro Asn Gly Cys Gly Lys Thr Thr
65              70              75              80
Leu Leu Lys Leu Met Leu Ser Lys Ile Gln Ala Asp Ser Gly Arg Val
      85              90              95
His Cys Gly Thr Lys Leu Glu Val Ala Tyr Phe Asp Gln His Arg Ala
      100             105             110
Glu Leu Asp Pro Glu Arg Thr Val Met Asp Asn Leu Ala Glu Gly Lys
      115             120             125
Gln Glu Val Met Val Asn Gly Arg Val

```

130

135

<210> 41  
 <211> 1080  
 <212> DNA  
 <213> Homo sapiens

<400> 41  
 gaattcaagt ggacacaggc tccacgcccg cgtctcaccg ataagagcta caagcacaac  
 60  
 tactatgacg agcgggtttc gtcgaagag cgtcttgagc gcaactgtggc taaggatttc  
 120  
 gtcacgacgg aggtcgagcc catgtgggat gcgctgatg tcatgcggat gggtaaggat  
 180  
 ctcttcatcc agcacggtct gacgacaaat cggaagtcaa tggagtgggt taagcgttac  
 240  
 taccocgatt tccgcgttca cgcggtgaat ttccctgggg atccgtaccc gatccatc  
 300  
 gacgcgacct ttgtgccgct tcgtccgggg ctcatcatca acaaccgaa tcgtccactg  
 360  
 ccgcaggagc agaggaagat cttcgaggcc aatgactggc agatcggtga tgcgtgctcag  
 420  
 ccggcgcacg acacgcctcc agaattgtgc tactcgtctg tgtggctatc aatgaactgc  
 480  
 ttggtacttg atccgaagac ggtcatctgc gaggcttcgg aagttcatca gatggagcag  
 540  
 atggacaagc tgggtatgaa cgtcatcccg gtcgccttcc gtgacgcgta cccattcggg  
 600  
 ggaggtctcc actgcgccac agctgatgta tatcggaag gtacctgtga ggactacttc  
 660  
 ccgaatcagg tcgacgaccc gaccttggtg tgagaaaacc ccgtgggtcat gtcatgactg  
 720  
 acgcatctcg gtggctcggg acggaactta cgtgtccgt taccgggccg ccgggtctga  
 780  
 tatggcagta tcacgcctag caaaaaggag catgtcatgg acatggagcc gggcatcatc  
 840  
 aacgtcaaac aggaagttcc aggcgtcggg acgatgaacc agaaagtggg attcgtgtcc  
 900  
 atgcttcttt ctgcaacggg tatggggttg gtgggtactt tcgggcgtct cagcactcct  
 960  
 gtggatccca cgacgggcag taagtacatc atcggtgatt ttttggccac tggtaggatg  
 1020  
 atagtcgggg tcctgggatt tctgcttatt atcgtcatc ttggaaaatg gtctgagctc  
 1080

<210> 42  
 <211> 230  
 <212> PRT  
 <213> Homo sapiens

<400> 42  
 Glu Phe Lys Trp Thr Gln Ala Pro Arg Pro Arg Leu Thr Asp Lys Ser  
 1 5 10 15  
 Tyr Lys His Asn Tyr Tyr Asp Glu Arg Val Ser Leu Glu Glu Arg Leu

```

      20      25      30
Glu Arg Thr Val Ala Lys Asp Phe Val Thr Thr Glu Val Glu Pro Met
      35      40      45
Trp Asp Ala Ala Asp Val Met Arg Met Gly Lys Asp Leu Phe Ile Gln
      50      55      60
His Gly Leu Thr Thr Asn Arg Lys Ser Met Glu Trp Phe Lys Arg Tyr
65      70      75      80
Tyr Pro Asp Phe Arg Val His Ala Val Asn Phe Pro Gly Asp Pro Tyr
      85      90      95
Pro Ile His Ile Asp Ala Thr Phe Val Pro Leu Arg Pro Gly Leu Ile
      100      105      110
Ile Asn Asn Pro Asn Arg Pro Leu Pro Gln Glu Gln Arg Lys Ile Phe
      115      120      125
Glu Ala Asn Asp Trp Gln Ile Val Asp Ala Ala Gln Pro Ala His Asp
      130      135      140
Thr Pro Pro Glu Leu Cys Tyr Ser Ser Val Trp Leu Ser Met Asn Cys
145      150      155      160
Leu Val Leu Asp Pro Lys Thr Val Ile Cys Glu Ala Ser Glu Val His
      165      170      175
Gln Met Glu Gln Met Asp Lys Leu Gly Met Asn Val Ile Pro Val Ala
      180      185      190
Phe Arg Asp Ala Tyr Pro Phe Gly Gly Gly Leu His Cys Ala Thr Ala
      195      200      205
Asp Val Tyr Arg Glu Gly Thr Cys Glu Asp Tyr Phe Pro Asn Gln Val
      210      215      220
Asp Asp Pro Thr Leu Val
225      230

```

<210> 43  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

```

<400> 43
gggcccccca catagtggac acagggtttct gggatgtcag catggagtgc caagaggtgg
60
gtgaccacct ggtggggaat aaggcgcttc tgggacatag aggctgcctt ccagctgcgc
120
ctggcagagc tgttgacaca acagcatggt ctgcagtgcc gggccactgc cacgcacacc
180
gatgtccttt aaggatggat ttgggttttc ggattcgcgt ggcctatcag cgggagtcct
240
agatcctgaa ggaagtgcag agcccagagg ggatgatctc gctgagggac acagctgcct
300
ccctccgect tgagagagac acaaggcagt tgccactgct caccagtgcc ctgcacgn
358

```

<210> 44  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 44
Met Glu Cys Gln Glu Val Gly Asp His Leu Val Gly Asn Lys Ala Leu

```

1	5	10	15
Leu Gly His Arg Gly Cys Leu Pro Ala Ala Pro Gly Arg Ala Val Asp			
	20	25	30
Thr Thr Ala Trp Ser Ala Val Pro Gly His Cys His Ala His Arg Cys			
	35	40	45
Pro Leu Arg Met Asp Leu Gly Phe Arg Ile Arg Val Ala Tyr Gln Arg			
	50	55	60
Glu Ser Gln Ile Leu Lys Glu Val Gln Ser Pro Glu Gly Met Ile Ser			
65	70	75	80
Leu Arg Asp Thr Ala Ala Ser Leu Arg Leu Glu Arg Asp Thr Arg Gln			
	85	90	95
Leu Pro Leu Leu Thr Ser Ala Leu His			
	100	105	

&lt;210&gt; 45

&lt;211&gt; 905

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

gtcgcagcata aaggagtatt tgcgcagcag cagtatgatg ctctcgttga ggcgggtttc  
60  
gcggctcctg gaatcccaga gcagtatggt ggcgcagggtg cggatgcgat tgcgtccgca  
120  
ataatcatgg aagaggtcgc tcgagtctgt gcgtcgtcgt ccaccgtcat atcgtccaat  
180  
gagcttggtta ccgtccctct cctcaaatac ggtagcggag agcagaggaa acgttatctt  
240  
tctgaagtgg ctctgggttaa ggcacttttc ggatatgcgc tctccgaggg tgatgctgga  
300  
tcagatccag ctgcacttaa gtgtcgagcc gacgaagatg gggacagttt cgtcctgaat  
360  
ggcgttaagg ctgggtcac ggaggctggc gagggccaagt acctgggtgat atttgcggtt  
420  
actgaccag acgatccgcg ccacagaatc agcgcgttga tgggtccatgc agatgaccg  
480  
ggcattagct acggggctcc ggagcacaaa atggggatac gcgggtcagt taccagggaa  
540  
gtggttttca agaatacgcg tatccccaag gaacgagtaa ttggccgtcg agggcacggt  
600  
ctgagtgttg ctctaggtac gcttgataac tctcgtgtct cgattgctgc tcaagcagtg  
660  
ggaattgccc aaggagcttt agacattgcc acggattacg tccagaagcg caagcagttt  
720  
ggccagccac tgtccaattt tgagggaatc cagttcatgc tcgcagacat ggcaatgcgt  
780  
ttggaggcgg cgcgagcgt gacatactct gcagctgac gtagtggcg ccagactgac  
840  
gatgtgagtt acttcggcgc ggcggccaaa tgtttcgctt ccgacacagc gatggcagtg  
900  
tgac  
905

&lt;210&gt; 46



&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 46

```

Val Asp Asp Lys Gly Val Phe Ala Gln Gln Gln Tyr Asp Ala Leu Val
 1           5           10           15
Glu Ala Gly Phe Ala Ala Pro Gly Ile Pro Glu Gln Tyr Gly Gly Asp
      20           25           30
Gly Ala Asp Ala Ile Ala Ser Ala Ile Ile Met Glu Glu Val Ala Arg
      35           40           45
Val Cys Ala Ser Ser Ser Thr Val Ile Ser Ser Asn Glu Leu Gly Thr
      50           55           60
Val Pro Leu Leu Lys Tyr Gly Ser Glu Glu Gln Arg Lys Arg Tyr Leu
      65           70           75           80
Ser Glu Val Ala Ser Gly Lys Ala Leu Phe Gly Tyr Ala Leu Ser Glu
      85           90           95
Ala Asp Ala Gly Ser Asp Pro Ala Ala Leu Lys Cys Arg Ala Asp Glu
      100          105          110
Asp Gly Asp Ser Phe Val Leu Asn Gly Val Lys Ala Trp Val Thr Glu
      115          120          125
Ala Gly Glu Ala Lys Tyr Leu Val Ile Phe Ala Val Thr Asp Pro Asp
      130          135          140
Asp Pro Arg His Arg Ile Ser Ala Leu Met Val His Ala Asp Asp Pro
      145          150          155          160
Gly Ile Ser Tyr Gly Ala Pro Glu His Lys Met Gly Ile Arg Gly Ser
      165          170          175
Val Thr Arg Glu Val Val Phe Lys Asn Thr Arg Ile Pro Lys Glu Arg
      180          185          190
Val Ile Gly Arg Arg Gly His Gly Leu Ser Val Ala Leu Gly Thr Leu
      195          200          205
Asp Asn Ser Arg Val Ser Ile Ala Ala Gln Ala Val Gly Ile Ala Gln
      210          215          220
Gly Ala Leu Asp Ile Ala Thr Asp Tyr Val Gln Lys Arg Lys Gln Phe
      225          230          235          240
Gly Gln Pro Leu Ser Asn Phe Glu Gly Ile Gln Phe Met Leu Ala Asp
      245          250          255
Met Ala Met Arg Leu Glu Ala Ala Arg Ala Leu Thr Tyr Ser Ala Ala
      260          265          270
Asp Arg Ser Gly Arg Gln Thr Asp Asp Val Ser Tyr Phe Gly Ala Ala
      275          280          285
Ala Lys Cys Phe Ala Ser Asp Thr Ala Met Ala Val Cys
      290          295          300

```

&lt;210&gt; 47

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 47

```

aagcttgtag agctagtccg aagcggactg tcggtacgcc aagctgctaa aagatgtggg
60
atgcatactta ccgctgcgta tgccgtagct acggaagctg ggtgccatat ccggttaagt
120

```

cagtatgtctc ggaaagtccg ccagacgcag ttaagagtgg aatacctgcg ccttcggctg  
 180  
 gcgagcctgc ctggtggtga tgctggcgcg gcagtaggaa ttgatcgctg actgcgttta  
 240  
 gatttcgaaa aaggactcac caaatcccag ggctgcagag aagagttcat acccgctcggc  
 300  
 gaagacgcca gcacgtataa cagacttatg aaagcgctgc gccaacgcca tgatgtcatc  
 360  
 aaatccggaa agcttgccc  
 379

<210> 48  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 48  
 Met His Leu Thr Ala Ala Tyr Ala Val Ala Thr Glu Ala Gly Cys His  
 1 5 10 15  
 Ile Arg Leu Ser Gln Tyr Ala Arg Lys Val Arg Gln Thr Gln Leu Arg  
 20 25 30  
 Val Glu Tyr Leu Arg Leu Arg Leu Ala Ser Leu Pro Gly Gly Asp Ala  
 35 40 45  
 Gly Ala Ala Val Gly Ile Asp Arg Arg Leu Arg Leu Asp Phe Glu Lys  
 50 55 60  
 Gly Leu Thr Lys Ser Gln Gly Arg Arg Glu Glu Phe Ile Pro Val Gly  
 65 70 75 80  
 Glu Asp Ala Ser Thr Tyr Asn Arg Leu Met Lys Ala Leu Arg Gln Arg  
 85 90 95  
 His Asp Val Ile Lys Ser Gly Lys Leu Ala  
 100 105

<210> 49  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 49  
 tgatcatgat gctggcatgg actattctgg tccctgttcc tctctcacct gctgaaggac  
 60  
 atccctctaa tttttgtgct tccttctgta tcatcaaatt ttccctctct actgagtctc  
 120  
 ttgcatctcc ttggaagcat gctgtactat gtcccatcct taaagaactc cccttgctctg  
 180  
 cacattaccc tctgccagct ggctcatttt tctgctcccc ttacagggga aactcttcaa  
 240  
 aaagttatct ccacctcctt ccattctcatg ttctcttgaa cctgcagtac tgggtgctcc  
 300  
 ctcccttttg  
 309

<210> 50  
 <211> 101  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 50

```

Met Met Leu Ala Trp Thr Ile Leu Val Pro Val Pro Leu Ser Pro Ala
 1             5             10             15
Glu Gly His Pro Ser Asn Phe Cys Val Ser Phe Cys Ile Ile Lys Phe
      20             25             30
Ser Leu Ser Thr Glu Ser Leu Ala Ser Pro Trp Lys His Ala Val Leu
      35             40             45
Cys Pro Ile Leu Lys Glu Leu Pro Leu Ser Ala His Tyr Pro Leu Pro
      50             55             60
Ala Gly Ser Phe Phe Cys Ser Pro Leu Gln Gly Asn Ser Ser Lys Ser
65             70             75             80
Tyr Leu His Leu Leu Pro Ser His Val Leu Leu Asn Leu Gln Tyr Trp
      85             90             95
Val Leu Pro Pro Phe
      100

```

&lt;210&gt; 51

&lt;211&gt; 512

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 51

```

agatctttga agaattgcca cactgtcttc ctccctgctt ataatttcct tattccctag
60
gatgtgatcc ttgttcttgg ggcctcacat ggcagctgga tctctggcga ttgcattctga
120
gttccagaca ccaggatgga aaagaaaaga aggaggggca agaggaaccc ccagatgctc
180
cttaagagct actgcgtggc attcccactt gcattctcatt tgctcgatcg ctgtcactgt
240
gccctaacga gctgcaagga cactggggaa atgagtctgt cttgtacttc atgtgccctc
300
caaaatcttc tggtgctgag ggagaagagg ccagccggta ttgaggaaca actagcactt
360
tctgcttccg cgtcccaggg ggacgtgggt gtgttgaatc cacaccgggg gtgcggacct
420
ctgaggctgg gctggatggg acatcaggtg ggccctctgt ttcatttatg tgacctccca
480
tcaggtcttc tggttggatc ctgctttcta ga
512

```

&lt;210&gt; 52

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 52

```

Met Glu Lys Lys Arg Arg Arg Gly Lys Arg Asn Pro Gln Met Leu Leu
 1             5             10             15
Lys Ser Tyr Cys Val Ala Phe Pro Leu Ala Ser His Leu Leu Asp Arg
      20             25             30
Cys His Cys Ala Leu Thr Ser Cys Lys Asp Thr Gly Glu Met Ser Leu

```

```

      35          40          45
Ser Cys Thr Ser Cys Ala Pro Gln Asn Leu Leu Leu Leu Arg Glu Lys
      50          55          60
Arg Pro Ala Gly Ile Glu Glu Gln Leu Ala Leu Ser Ala Ser Ala Ser
65          70          75          80
Gln Gly Asp Val Gly Val Leu Asn Pro His Arg Gly Cys Gly Pro Leu
      85          90          95
Arg Leu Gly Trp Met Gly His Gln Val Gly Pro Leu Phe His Leu Cys
      100          105          110
Asp Leu Pro Ser Gly Leu Leu Val Gly Ser Cys Phe Leu
      115          120          125

```

&lt;210&gt; 53

&lt;211&gt; 474

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 53

```

accggtacac ctacgtcacc cgtaaaaacc gacgcaatac ccggatcgcc tcgtcctcaa
60
aaaattcgat cccgtcgtgc gtcgtcacat tgagttcaag gaggcccgct aatggccaaa
120
aagtccaaga ttgtcgccca gaagaaacgt gagaagctcg tagcccaata cgccgaaagg
180
cgcgccgaac tcaaggccat catgaagtgc ccaactgcct cattggacga acgcatggag
240
gcatcgcgta agctgtctcg cctgccgcgc gattcatccc ccgtgcgggtt acgtaaccgt
300
gaccaagtgc acggggtccc ccgcggttac gttggcaagg ccggtgtgtc ccgtatccgt
360
ttccgtgaga tggtccaccg cggcgaaact cccggaatcg cgaagtcaag ctggtgaagc
420
catggcagta ccgaagcgaa agaagtcccg ttcgaccacg cgatcataggc gggc
474

```

&lt;210&gt; 54

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

```

Met Ala Lys Lys Ser Lys Ile Val Ala Gln Lys Lys Arg Glu Lys Leu
  1          5          10          15
Val Ala Gln Tyr Ala Glu Arg Arg Ala Glu Leu Lys Ala Ile Met Lys
      20          25          30
Cys Pro Thr Ala Ser Leu Asp Glu Arg Met Glu Ala Ser Arg Lys Leu
      35          40          45
Ser Arg Leu Pro Arg Asp Ser Ser Pro Val Arg Leu Arg Asn Arg Asp
      50          55          60
Gln Val Asp Gly Arg Pro Arg Gly Tyr Val Gly Lys Ala Gly Val Ser
65          70          75          80
Arg Ile Arg Phe Arg Glu Met Ala His Arg Gly Glu Leu Pro Gly Ile
      85          90          95
Ala Lys Ser Ser Trp

```

100

<210> 55  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 55  
 ccatggccca ggacagccgg catatcggt acgactacgg tacaccggtg gcgccacagt  
 60  
 tcggcgcagc caagcccgca gcgtgctgcc aggcgcaagc gacaaacacc ggcccgtggg  
 120  
 tgggtgttcga ccatgtgcgt tgcacccacg acacctttct gatcgacgtc tttctcaacc  
 180  
 agcccgatgc caccgcgcag cagggtcaatg ccgacaaccc gcaactacgtc gggcgtttca  
 240  
 gccgcatcgg catgggcctg gtggatgaca agggccgttg cattacccag ggcgtatcgc  
 300  
 gcgcgttgaa tcgggcgcgc agcaccaagg cgctgaacct gggaccgagt gacgcggcgc  
 360  
 agttatcggg gaggcgta  
 378

<210> 56  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 56  
 Met Ala Gln Asp Ser Arg His Ile Gly Tyr Asp Tyr Gly Thr Pro Val  
 1 5 10 15  
 Ala Pro Gln Phe Gly Ala Ala Lys Pro Ala Ala Cys Cys Gln Ala Gln  
 20 25 30  
 Ala Thr Asn Thr Gly Pro Trp Val Val Phe Asp His Val Arg Cys Thr  
 35 40 45  
 His Asp Thr Phe Leu Ile Asp Val Phe Leu Asn Gln Pro Asp Ala Thr  
 50 55 60  
 Ala Gln Gln Val Asn Ala Asp Asn Pro His Tyr Val Gly Arg Phe Ser  
 65 70 75 80  
 Arg Ile Gly Met Gly Leu Val Asp Asp Lys Gly Arg Cys Ile Thr Gln  
 85 90 95  
 Gly Val Ser Arg Ala Leu Asn Ala Ala Arg Ser Thr Lys Ala Leu Asn  
 100 105 110  
 Leu Gly Pro Ser Asp Ala Ala Gln Leu Ser Val Arg Arg  
 115 120 125

<210> 57  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 57  
 agaccacccc gacacagatc aggagtcgtc atgtccagaa agaagaaggt cggcatcctc  
 60

accgcaggcg gtgattgccc cgggctcaac gccgctatcc gcggatttgg caaggctgcc  
 120  
 atccgccagc acgacatgga gctcatcggt attcaggacg gctttcttgg attggcgggga  
 180  
 aaccgcacca tctcccttgg cccgcgtgcc ctctcaggca tcttgacggt cggcgggacc  
 240  
 atcctgggaa ctagccgtga caaggccaat cacatgatta tcgacggcga ggaacgggat  
 300  
 atgggtcccca ccaccgtcga gaattacgag aagctggggc ttgacgcttt ggtgactttg  
 360  
 ggtggcgggtg gcaccgcaa gaacgcgt  
 388

<210> 58  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 58  
 Arg Pro Thr Arg His Arg Ser Gly Val Val Met Ser Arg Lys Lys Lys  
 1 5 10 15  
 Val Gly Ile Leu Thr Ala Gly Gly Asp Cys Pro Gly Leu Asn Ala Ala  
 20 25 30  
 Ile Arg Gly Phe Gly Lys Ala Ala Ile Arg Gln His Asp Met Glu Leu  
 35 40 45  
 Ile Gly Ile Gln Asp Gly Phe Leu Gly Leu Ala Gly Asn Arg Thr Ile  
 50 55 60  
 Ser Leu Gly Pro Arg Ala Leu Ser Gly Ile Leu Thr Val Gly Gly Thr  
 65 70 75 80  
 Ile Leu Gly Thr Ser Arg Asp Lys Val Asn His Met Ile Ile Asp Gly  
 85 90 95  
 Glu Glu Arg Asp Met Val Pro Thr Thr Val Glu Asn Tyr Glu Lys Leu  
 100 105 110  
 Gly Leu Asp Ala Leu Val Thr Leu Gly Gly Gly Gly Thr Ala Lys Asn  
 115 120 125  
 Ala

<210> 59  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 59  
 ggtaccatcg gagctcgaca agaatgggtt gggatgaagtc gtggcttctg ctccaccag  
 60  
 tgccctcatg ggtagccca cctgaatata ttcattgcctg tgcatttctc ctgatgttca  
 120  
 cgtgtgccct gtgtttttac gcattctgtga tcgtgcaccc acgcgtctca gagaggagcc  
 180  
 cgttttgggaa tccggagaat gtgcgctggc ggaagagcgt cacacactgg aagcaaacct  
 240  
 cagaccgcgt ggacaagacc aaggatgaaa tggaacacga ggccttggtg gaagggaacc  
 300

tggcaaccga ggcaagccta gtggttctgg acacactgga gatcatcggtg cagacggtga  
 360  
 tgctttcaga agcccgagg agcgtcttgg gggcagtgtt gaaggttgtg ctgtaca  
 417

<210> 60  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 60  
 Met Phe Thr Cys Ala Leu Cys Phe Tyr Ala Ser Val Ile Val His Pro  
 1 5 10 15  
 Arg Val Ser Glu Arg Ser Pro Phe Gly Asn Pro Glu Asn Val Arg Trp  
 20 25 30  
 Arg Lys Ser Val Thr His Trp Lys Gln Thr Ser Asp Arg Val Asp Lys  
 35 40 45  
 Thr Lys Asp Glu Met Glu His Glu Ala Leu Val Glu Gly Asn Leu Ala  
 50 55 60  
 Thr Glu Ala Ser Leu Val Val Leu Asp Thr Leu Glu Ile Ile Val Gln  
 65 70 75 80  
 Thr Val Met Leu Ser Glu Ala Arg Glu Ser Val Leu Gly Ala Val Leu  
 85 90 95  
 Lys Val Val Leu Tyr  
 100

<210> 61  
 <211> 304  
 <212> DNA  
 <213> Homo sapiens

<400> 61  
 agatcttcac agccttagac ttttttcatg ggtgccttac agttttggag gtccctatcc  
 60  
 gcacacatat ttgcaggctt ggagagagtg tgtgggggca tgtactttcg gtgggtcaag  
 120  
 tatgaagaag caggccttat aaacacatat tctgacctta acctgtactt cagaagagga  
 180  
 ccgctgactc accaaggagg cctgaaggac aaggcagcat ctctgtcttc acatgagtcc  
 240  
 tcccctagac cgggcccatt gccaggcctg accacagagc tccattgcc tttcctgcac  
 300  
 gcgt  
 304

<210> 62  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 62  
 Met Gly Ala Leu Gln Phe Trp Arg Ser Leu Ser Ala His Ile Phe Ala  
 1 5 10 15

Gly Leu Glu Arg Val Cys Gly Gly Met Tyr Phe Arg Trp Val Lys Tyr  
 20 25 30  
 Glu Glu Ala Gly Leu Ile Asn Thr Tyr Ser Asp Leu Asn Leu Tyr Phe  
 35 40 45  
 Arg Arg Gly Pro Leu Thr His Gln Gly Gly Leu Lys Asp Lys Ala Ala  
 50 55 60  
 Ser Leu Ser Ser His Glu Ser Ser Pro Arg Pro Gly Pro Trp Pro Gly  
 65 70 75 80  
 Leu Thr Thr Glu Leu Pro Leu Pro Phe Leu His Ala  
 85 90

<210> 63  
 <211> 577  
 <212> DNA  
 <213> Homo sapiens

<400> 63  
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 ctgacgggtgc tagctgggtg gctcacccta gccggggcgta tcagtgtcgg ggaactcgtc  
 120  
 accgtgggtcg ggctggccca aacctcgggc cctccgctgc gagcactggg cgtcgacacc  
 180  
 gcgacgatgt tggccaccgc ccacgcctcc ggggaccgat tctgtgagtt gcgtgatagc  
 240  
 ccggcagcct ggcagatcca ccccgacgac ggtgcccgc caacaccggg tgatggcccg  
 300  
 gtggagtgtc acatcccggg cagggatttc cagcttgacg tcgccggcgg caccatgtg  
 360  
 ggtatcatgg cgcctcaatc ggtctgtgac gccttgccg aggcgataga ccacggctcc  
 420  
 gagaccgtct tgaatggggg tcccggcagt cgcctcaacc ctgcccacg gcgtcgtctg  
 480  
 gtgctgggtg cccccgctc cccogaactg ttcgacgata ctgcccgtgc gaacatcgtg  
 540  
 cttgacagcc agacgactgt cgccaggctg aatgcat  
 577

<210> 64  
 <211> 192  
 <212> PRT  
 <213> Homo sapiens

<400> 64  
 Arg Val Lys Gly Val Tyr Thr Gly Thr Ile Asn Ala Ser Val Gly Val  
 1 5 10 15  
 Phe Ile Thr Ala Leu Thr Val Leu Ala Gly Trp Leu Thr Leu Ala Gly  
 20 25 30  
 Arg Ile Ser Val Gly Glu Leu Val Thr Val Val Gly Leu Ala Gln Thr  
 35 40 45  
 Leu Gly Pro Pro Leu Arg Ala Leu Gly Val Asp Thr Ala Thr Met Leu  
 50 55 60  
 Ala Thr Ala His Ala Ser Gly Asp Arg Phe Cys Glu Leu Arg Asp Ser  
 65 70 75 80



```

Pro Ala Ala Trp Gln Ile His Pro Asp Asp Gly Ala Arg Thr Thr Pro
      85                      90                      95
Gly Asp Gly Pro Val Glu Leu His Ile Pro Val Arg Asp Phe Gln Leu
      100                    105                    110
Asp Val Ala Gly Gly Thr His Val Gly Ile Met Ala Pro Gln Ser Val
      115                    120                    125
Cys Asp Ala Leu Ala Glu Ala Ile Asp His Gly Ser Glu Thr Val Leu
      130                    135                    140
Asn Gly Val Pro Ala Ser Arg Leu Asn Pro Ala Gln Arg Arg Arg Leu
      145                    150                    155                    160
Val Leu Val Ala Pro Arg Ser Pro Glu Leu Phe Asp Asp Thr Ala Arg
      165                    170                    175
Ala Asn Ile Val Leu Asp Ser Gln Thr Thr Val Ala Arg Leu Asn Ala
      180                    185                    190

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&lt;210&gt; 65

&lt;211&gt; 339

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 65

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gtcgaccgcg ccttgggata gctcgaagg ggcagcctgg accaggtagc ggaagaagtc
60
aagaaggcgc ctttcaagat caccgcgcgc gggcaactag tgggcacccat ggctccgag
120
cgcccttggcg tacccttcgg catcatcgac ctttcgcttg cccctactgc cgaattggga
180
gattcgggggg cccacatcct tgagcatatg ggattggacc aagtaggcac gcacggcaca
240
actgctgctt tggctctgct taacgacgcc gtaaagaaag gcggcatgat ggctgcccc
300
cgcgctcggcg gtttgtctgg ctcccttcac cggggtctc
339

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&lt;210&gt; 66

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 66

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Val Asp Arg Ala Leu Gly Ser Leu Glu Gly Ala Ser Leu Asp Gln Val
1      5      10      15
Ala Glu Glu Val Lys Lys Ala Ala Phe Lys Ile Thr Arg Ala Gly Gln
20     25     30
Leu Val Gly Thr Met Ala Ser Glu Arg Leu Gly Val Pro Phe Gly Ile
35     40     45
Ile Asp Leu Ser Leu Ala Pro Thr Ala Glu Leu Gly Asp Ser Gly Ala
50     55     60
His Ile Leu Glu His Met Gly Leu Asp Gln Val Gly Thr His Gly Thr
65     70     75     80
Thr Ala Ala Leu Ala Leu Leu Asn Asp Ala Val Lys Lys Gly Gly Met
85     90     95
Met Ala Cys Pro Arg Val Gly Gly Leu Ser Gly Ser Phe Ile Pro Gly
100    105    110

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Ser

&lt;210&gt; 67

&lt;211&gt; 446

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 67

tgatcataaa ccacgcgtca ccgaggggat gtggcacacc tacctgcgcg tcgcagatgc  
 60  
 cgcacaggca cgggtcaggg gcgttcgcgg cgccagctgg cacaacttcg cgaccggtga  
 120  
 caaggggtcc ttcgacgcca acgagcttgc cgtaactcct gatactgaca ccgtcatcca  
 180  
 gggagtcggg cccgccctag ccctcctcga ttcagcgtgg ggacgccaga tccacgtgga  
 240  
 gacaacaggg tgtcccagtg ccgtggctctg gaatccacgc tcctcgtcga cacatgccga  
 300  
 taaccgcaca gcccgagcat ggcgcgattt cgtatgcgtc gagaccgggg cctgcaagga  
 360  
 caatgcggtc attgttgccc cacacagcga cctcaccatg tccacacgga ttagcgtcga  
 420  
 aacgttgtga tcgctgcatg gatatt  
 446

&lt;210&gt; 68

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 68

Met	Trp	His	Thr	Tyr	Leu	Arg	Val	Ala	Asp	Ala	Ala	Gln	Ala	Arg	Val
1				5					10					15	
Arg	Gly	Val	Arg	Gly	Ala	Ser	Trp	His	Asn	Phe	Ala	Thr	Gly	Asp	Lys
		20					25					30			
Gly	Ser	Phe	Asp	Ala	Asn	Glu	Leu	Ala	Val	Thr	Pro	Asp	Thr	Asp	Thr
		35				40					45				
Val	Ile	Gln	Gly	Val	Gly	Pro	Ala	Leu	Ala	Leu	Leu	Asp	Ser	Ala	Trp
	50				55					60					
Gly	Arg	Gln	Ile	His	Val	Glu	Thr	Thr	Gly	Cys	Pro	Ser	Ala	Val	Val
65			70						75				80		
Trp	Asn	Pro	Arg	Ser	Ser	Ser	Thr	His	Ala	Asp	Asn	Pro	Thr	Ala	Gln
			85					90				95			
Ala	Trp	Arg	Asp	Phe	Val	Cys	Val	Glu	Thr	Gly	Ala	Cys	Lys	Asp	Asn
		100					105				110				
Ala	Val	Ile	Val	Ala	Pro	His	Ser	Asp	Leu	Thr	Met	Ser	Thr	Arg	Ile
	115					120					125				
Ser	Val	Glu	Thr	Leu											
	130														

&lt;210&gt; 69

&lt;211&gt; 552

&lt;212&gt; DNA

<213> Homo sapiens

<400> 69

nnaagggtaa ggagaaaagc aaggaccttg caaagagagc ctctgtgccg gagaggctgg  
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ccctcaagga ggagccaaaa gaagacccca gtggagcagc tgtgcccag atgccaaaaa  
120  
agtcctccaa gattgccagc ttcattccca aaggggggaa gctcaacagt gccaagaagg  
180  
agcnccatgg ccccttcctt cagtgggaata ccaaaccag gaatgaaaag catgcccggg  
240  
aaatccccaa gtgcccagc gccttccaag gaaggggagc ggagccggag tgggaagctg  
300  
agctcaggac tccccagca gaagcccccag ctggacggca gacactccag ttcctcttcc  
360  
agcctggcgt cctcagaagg aaaaggccca ggagggacca ccctgaacca cagcatcagc  
420  
agccagactg tcagtgggtc tgcggggacc acccagacca caggaagcaa tnnaccgtca  
480  
gtgttcagct acctcagccc cagcagcaat acaaccatcc caacactgcc acggttgac  
540  
ctttcctgta ca  
552

<210> 70

<211> 184

<212> PRT

<213> Homo sapiens

<400> 70

Xaa	Arg	Val	Arg	Arg	Lys	Ala	Arg	Thr	Leu	Gln	Arg	Glu	Pro	Leu	Cys
1					5				10					15	
Arg	Arg	Gly	Trp	Pro	Ser	Arg	Arg	Ser	Gln	Lys	Lys	Thr	Pro	Val	Glu
			20					25					30		
Gln	Leu	Cys	Pro	Arg	Cys	Gln	Lys	Ser	Pro	Pro	Arg	Leu	Pro	Ala	Ser
		35				40						45			
Ser	Pro	Lys	Gly	Gly	Ser	Ser	Thr	Val	Pro	Arg	Arg	Ser	Xaa	Met	Ala
	50				55				60						
Pro	Ser	Leu	Ser	Gly	Ile	Pro	Lys	Pro	Gly	Met	Lys	Ser	Met	Pro	Gly
65					70				75					80	
Lys	Ser	Pro	Ser	Ala	Pro	Ala	Pro	Ser	Lys	Glu	Gly	Glu	Arg	Ser	Arg
				85				90						95	
Ser	Gly	Lys	Leu	Ser	Ser	Gly	Leu	Pro	Gln	Gln	Lys	Pro	Gln	Leu	Asp
		100					105						110		
Gly	Arg	His	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Ala	Ser	Ser	Glu	Gly	Lys
		115					120						125		
Gly	Pro	Gly	Gly	Thr	Thr	Leu	Asn	His	Ser	Ile	Ser	Ser	Gln	Thr	Val
	130					135						140			
Ser	Gly	Ser	Val	Gly	Thr	Thr	Gln	Thr	Thr	Gly	Ser	Asn	Xaa	Pro	Ser
145					150					155				160	
Val	Phe	Ser	Tyr	Leu	Ser	Pro	Ser	Ser	Asn	Thr	Thr	Ile	Pro	Thr	Leu
				165					170					175	
Pro	Arg	Leu	His	Leu	Ser	Cys	Thr								
				180											

<210> 71  
 <211> 316  
 <212> DNA  
 <213> Homo sapiens

<400> 71  
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 120  
 ttacgtacct tggcgttatt ccgtttcatc ttgccaaacg cattgatacg aactgcaggt  
 180  
 ggccgcgaag taaatctacg agacttacaa gcttatgttc taaaagggtg cctaaacggt  
 240  
 atcatggttg gtggctactt aactactggc ggtcgttcac ctcaagacga tctccaaatg  
 300  
 attcaagact tggagt  
 316

<210> 72  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 72  
 Arg Val Glu Met Ala Phe Glu Leu Lys Arg Leu His Ile Asp Ser Val  
 1 5 10 15  
 Pro Leu Asn Ile Leu Asn Pro Val Lys Gly Thr Pro Phe Glu Ser Asn  
 20 25 30  
 Glu Ala Leu Arg Pro Leu Asn Ile Leu Arg Thr Phe Ala Val Phe Arg  
 35 40 45  
 Phe Ile Leu Pro Asn Ala Leu Ile Arg Thr Ala Gly Gly Arg Glu Val  
 50 55 60  
 Asn Leu Arg Asp Leu Gln Ala Tyr Ala Leu Lys Gly Gly Leu Asn Gly  
 65 70 75 80  
 Ile Met Val Gly Gly Tyr Leu Thr Thr Gly Gly Arg Ser Pro Gln Asp  
 85 90 95  
 Asp Leu Gln Met Ile Gln Asp Leu Glu  
 100 105

<210> 73  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 73  
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 gcttggtatg tcgaccgagc cgaggagctc gaggcgctcg acgggtgccca gtttgtgccg  
 120  
 ccacgagtga ccgtcgtcac cccgcgtgg aacttcgccc tgtctattac cgccggatcc  
 180

acccttgccg ctctggccgc cggatcgta gtactactca agcccgtcc acaggcccgc  
 240  
 cactgtgctg ccgtcatctc tgaatgcctg tgggaggctg ggatcccgcg ggacgttctg  
 300  
 cagctcgtcg atgttgagga aaatgaggct ggtaaacacc tggtagacca ccccagagtc  
 360  
 gatcgggtca tcctcacggg aggt  
 384

<210> 74

<211> 128

<212> PRT

<213> Homo sapiens

<400> 74

Xaa	Thr	Gly	Lys	Ile	Leu	Ala	Glu	Gly	Asp	Val	Glu	Val	Ser	Glu	Ala
1			5					10					15		
Ile	Asp	Phe	Ala	Ala	Trp	Tyr	Val	Asp	Arg	Ala	Glu	Glu	Leu	Glu	Gly
		20					25					30			
Val	Asp	Gly	Ala	Gln	Phe	Val	Pro	Pro	Arg	Val	Thr	Val	Val	Thr	Pro
		35				40					45				
Pro	Trp	Asn	Phe	Ala	Leu	Ser	Ile	Thr	Ala	Gly	Ser	Thr	Leu	Ala	Ala
	50				55			60							
Leu	Ala	Ala	Gly	Ser	Ser	Val	Leu	Leu	Lys	Pro	Ala	Pro	Gln	Ala	Arg
65				70				75					80		
His	Cys	Ala	Ala	Val	Ile	Ser	Glu	Cys	Leu	Trp	Glu	Ala	Gly	Ile	Pro
			85				90						95		
Arg	Asp	Val	Leu	Gln	Leu	Val	Asp	Val	Glu	Glu	Asn	Glu	Ala	Gly	Lys
		100					105						110		
His	Leu	Val	Ser	His	Pro	Glu	Val	Asp	Arg	Val	Ile	Leu	Thr	Gly	Gly
		115					120						125		

<210> 75

<211> 405

<212> DNA

<213> Homo sapiens

<400> 75

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 60  
 cgcattgagg cgctggccga gctctatgcc gatcccaaga ccagggtggt gagcttctgg  
 120  
 accatgggct tcaaccagca caccgcgggc gtctggtgca acaatctcgt ctacaacatc  
 180  
 cacctgctga ccggaaaaat ctgcacgccc ggcaacagcc cgttctcgtc gaccgggcag  
 240  
 ccatcggcct gcggcacggc gcgcgaggtc ggtaccttct cgcacgcct gcccgccgac  
 300  
 atgggtgtca ccagcaaggc gcaccgcgac atcgccgaga agatctggca gctgcgggaa  
 360  
 ggaccagtcc ccgacaagcc cggctaccac gccgtgctgc agagc  
 405

<210> 76

<211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 76  
 Glu Phe Val Ser Glu Tyr Thr Leu Glu Asn Ser Ala Glu Met Ser Gly  
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 Val Arg Ser Xaa Arg Ile Glu Ala Leu Ala Glu Leu Tyr Ala Asp Pro  
 20 25 30  
 Lys Thr Arg Val Val Ser Phe Trp Thr Met Gly Phe Asn Gln His Thr  
 35 40 45  
 Arg Gly Val Trp Cys Asn Asn Leu Val Tyr Asn Ile His Leu Leu Thr  
 50 55 60  
 Gly Lys Ile Ser Thr Pro Gly Asn Ser Pro Phe Ser Leu Thr Gly Gln  
 65 70 75 80  
 Pro Ser Ala Cys Gly Thr Ala Arg Glu Val Gly Thr Phe Ser His Arg  
 85 90 95  
 Leu Pro Ala Asp Met Val Val Thr Ser Lys Ala His Arg Asp Ile Ala  
 100 105 110  
 Glu Lys Ile Trp Gln Leu Pro Glu Gly Pro Val Pro Asp Lys Pro Gly  
 115 120 125  
 Tyr His Ala Val Leu Gln Ser  
 130 135

<210> 77  
 <211> 5816  
 <212> DNA  
 <213> Homo sapiens

<400> 77  
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 gggcggtgcgc gccgcgcagc ctcaggcccc ggggttacttg attgcagctc cctctgtttt  
 120  
 tcgcgcgggc gtggaggaag tcatcagcgt gaccatcttt aactctccaa gggaagtcac  
 180  
 ggtccaggct cagctggtgg ccaggggtga gccggtggtg cagagccagg gagccatcct  
 240  
 ggataaaggg acaatcaaac tcaagggtgcc cacgggcctc cggggccaag cgcttctgaa  
 300  
 agtgtggggc cgcggctggc aggcggagga ggggccccctc ttccacaacc agacctcggc  
 360  
 gaccgtggac ggccggggcg cttctgtatt catccagacg gacaagcctg tgtacagacc  
 420  
 ccagcaccga gtgctcataa gcatcttcac cgtctctcca aatctgaggc ctgtcaacga  
 480  
 gaagctggaa gcctacatcc tggacccccg aggctctcgg atgatagagt ggagacactt  
 540  
 aaagccgttc tgcgcggca tcaccaacat gagcttcccc ttgtccgacc agcctgtggt  
 600  
 gggagaatgg ttcatttttg ttgaaatgca aggccacgcg tacaacaagt cttttgaagt  
 660  
 tcagaagtat gtgttgccca agtttgagct tctgattgac ccgccccggt atatccaaga  
 720

cctggacgcc tgtgagacag gcaactgtgcg ggccaggtat acctttggga aacctgtggc  
780  
tggtgcctta atgatcaaca tgactgttaa tgggtgtaggg tactacagcc acgaggtggg  
840  
acgccctgtc ctcagaacaa ccaagatcct cggctcccgg gacttcgaca tctgcgtgag  
900  
ggacatgac ccagcggacg tccctgagca cttccggggc agggtcagca tctgggccat  
960  
ggtgaccagt gtggacggga gccagcaggt cgcgttcgat gactccaccc ccgtgcagag  
1020  
gcagctggtg gacatccggt actccaagga cacgaggaag cagttcaagc cgggcctggc  
1080  
ctacgtgggg aagggtggagc taccctaccc cgatggcagc ccagctgagg gggtgacggt  
1140  
ccagattaag gcagagctga caccaaagga taacatctac accagtgaag ttgtgtccca  
1200  
gcgtggacta gtggggtttg aaatcccctc catccccacg tcagcccagc acgtgtggct  
1260  
ggagaccaag gtgatggcac tgaacgggaa gcccgtgggg gctcagtacc tgcccagcta  
1320  
cctctcccctc ggcagctggt actccccag ccagtgtctac ctgcagctgc agccaccctc  
1380  
ccaccactg caggttgggg aagaagccta tttttctgtg aagtccacat gtccctgcaa  
1440  
ctttaccctg tactacgagg tggctgcacg gggcaatatt gtgctatcgg gccagcagcc  
1500  
tgcccacacc acccagcagc gaagcaagcg ggcggcccct gccctggaga aaccgattcg  
1560  
ttaaacaac cttttctgaga cagagccccc accagcccca gaagctgagg tcgacgtgtg  
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1680  
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<211> 799

<212> PRT

<213> Homo sapiens

<400> 78

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Thr	Ala	Ser	Ile	Ile	Gly	Asp	Val	Met	Gly	Pro	Thr	Leu	Asn	His
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Asn	Asn	Leu	Leu	Arg	Leu	Pro	Phe	Gly	Cys	Gly	Glu	Gln	Asn	Met
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His	Phe	Ala	Pro	Asn	Val	Phe	Val	Leu	Lys	Tyr	Leu	Gln	Lys	Thr
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Gln	Leu	Ser	Pro	Glu	Val	Glu	Arg	Glu	Thr	Thr	Asp	Tyr	Leu	Val
			85					90					95	
Gly	Tyr	Gln	Arg	Gln	Leu	Thr	Tyr	Lys	Arg	Gln	Asp	Gly	Ser	Tyr
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Ala	Phe	Gly	Glu	Arg	Asp	Ala	Ser	Gly	Ser	Met	Trp	Leu	Thr	Ala
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Val	Leu	Lys	Ser	Phe	Ala	Gln	Ala	Arg	Ser	Phe	Ile	Phe	Val	Asp
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Asp	Gly	Ser	Phe	Leu	Ala	Val	Gly	Arg	Val	Leu	Asn	Lys	Asp	Ile
			165					170					175	
Gly	Gly	Ile	His	Gly	Ile	Val	Pro	Leu	Thr	Ala	Tyr	Val	Val	Val
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Leu	Leu	Glu	Thr	Gly	Thr	Ala	Ser	Glu	Glu	Glu	Arg	Gly	Ser	Thr
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Lys	Ala	Arg	His	Phe	Leu	Glu	Ser	Ala	Ala	Pro	Leu	Ala	Met	Asp
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Tyr	Ser	Cys	Ala	Leu	Thr	Thr	Tyr	Ala	Leu	Thr	Leu	Leu	Arg	Ser
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Asp	Gly	Val	Thr	His	Trp	Ser	Leu	Ser	Asn	Ser	Trp	Asp	Val	Asp
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Gly	Thr	Phe	Leu	Ser	Phe	Ser	Asp	Arg	Val	Ser	Gln	Ser	Val	Val
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Ala	Glu	Val	Glu	Met	Thr	Ala	Tyr	Ala	Leu	Leu	Thr	Tyr	Thr	Leu
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Arg Asn Ala Leu Gly Gly Phe Ser Ser Thr Gln Asp Thr Cys Val Ala
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Leu Gln Ala Leu Ala Glu Tyr Ala Ile Leu Ser Tyr Ala Gly Gly Ile
          340          345          350
Asn Leu Thr Val Ser Leu Ala Ser Thr Asn Leu Asp Tyr Gln Glu Thr
          355          360          365
Phe Glu Leu His Arg Thr Asn Gln Lys Val Leu Gln Thr Ala Ala Ile
          370          375          380
Pro Ser Leu Pro Thr Gly Leu Phe Val Ser Ala Lys Gly Asp Gly Cys
385          390          395          400
Cys Leu Met Gln Ile Asp Val Thr Tyr Asn Val Pro Asp Pro Val Ala
          405          410          415
Lys Pro Ala Phe Gln Leu Leu Val Ser Leu Gln Glu Pro Glu Ala Gln
          420          425          430
Gly Arg Pro Pro Pro Met Pro Ala Ser Ala Ala Glu Gly Ser Arg Gly
          435          440          445
Asp Trp Pro Pro Ala Asp Asp Asp Asp Pro Ala Ala Asp Gln His His
          450          455          460
Gln Glu Tyr Lys Val Met Leu Glu Val Cys Thr Arg Trp Leu His Ala
465          470          475          480
Gly Ser Ser Asn Met Ala Val Leu Glu Val Pro Leu Leu Ser Gly Phe
          485          490          495
Arg Ala Asp Ile Glu Ser Leu Glu Gln Leu Leu Leu Asp Lys His Met
          500          505          510
Gly Met Lys Arg Tyr Glu Val Ala Gly Arg Arg Val Leu Phe Tyr Phe
          515          520          525
Asp Glu Ile Pro Ser Arg Cys Leu Thr Cys Val Arg Phe Arg Ala Leu
          530          535          540
Arg Glu Cys Val Val Gly Arg Thr Ser Ala Leu Pro Val Ser Val Tyr
545          550          555          560
Asp Tyr Tyr Glu Pro Ala Phe Glu Ala Thr Arg Phe Tyr Asn Val Ser
          565          570          575
Thr His Ser Pro Leu Ala Arg Glu Leu Cys Ala Gly Pro Ala Cys Asn
          580          585          590
Glu Val Glu Arg Ala Pro Ala Arg Gly Pro Gly Trp Phe Pro Gly Glu
          595          600          605
Ser Gly Pro Ala Val Ala Pro Glu Glu Gly Ala Ala Ile Ala Arg Cys
          610          615          620
Gly Cys Asp His Asp Cys Gly Ala Gln Gly Asn Pro Val Cys Gly Ser
625          630          635          640
Asp Gly Val Val Tyr Ala Ser Ala Cys Arg Leu Arg Glu Ala Ala Cys
          645          650          655
Arg Gln Ala Ala Pro Leu Glu Pro Ala Pro Pro Ser Cys Cys Ala Leu
          660          665          670
Glu Gln Arg Leu Pro Ala Ser Ser Ser Ser Thr Tyr Gly Asp Asp Leu
          675          680          685
Ala Ser Val Ala Pro Gly Pro Leu Gln Gln Asp Val Lys Leu Asn Gly
          690          695          700
Ala Gly Leu Glu Val Glu Asp Ser Asp Pro Glu Pro Glu Gly Glu Ala
705          710          715          720
Glu Asp Arg Val Thr Ala Gly Pro Arg Pro Pro Val Ser Ser Gly Asn
          725          730          735
Leu Glu Ser Ser Thr Gln Ser Ala Ser Pro Phe His Arg Trp Gly Gln

```

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              740              745              750
Thr Pro Ala Pro Gln Arg His Ser Gly Arg Val Val Gly Ala His Arg
              755              760              765
Pro Gly Leu Leu Ser Pro Val Phe Val Tyr Ser Pro Ala Phe Gln Ser
              770              775              780
Gly Gly Glu Glu Gly Leu Trp Met Ser Asn Thr Cys Thr Leu Arg
785              790              795

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 <211> 346  
 <212> DNA  
 <213> Homo sapiens

<400> 79  
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<210> 80  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

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Met His Val Ala Pro Lys Asp Tyr Leu Pro Gly Lys Ser Ala Glu Glu
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Lys Ala Glu Tyr Leu Ala Ala Thr Ser Tyr Arg Asp Phe Leu Leu Lys
              20              25              30
Asp Val Gly Leu Ser Glu Gly Ala Val Lys Tyr Phe Gln Ser Arg Thr
              35              40              45
Asn Asp Phe Met Ala Leu Ser Ile Asp Ala Val Ala Ser Ala Asp Ala
              50              55              60
Tyr Ser Val Gly Phe Pro Gly Phe Gly Gly Met Asn Leu Ala Pro Ile
65              70              75              80
Ser Glu Glu Ala Ala Glu Met Glu Glu Pro Tyr Ile Tyr His Phe
              85              90              95
Pro Asp Gly Asn Ala
              100

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<210> 81  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 81

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 <211> 79  
 <212> PRT  
 <213> Homo sapiens

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 Met Xaa Val Cys Met Cys Val Cys Thr Cys Xaa Cys Val Pro Val Cys  
 20 25 30  
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 35 40 45  
 Cys Leu Cys Val Xaa Val Cys Val Arg Ala Cys Val Cys Thr Cys Val  
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<210> 83  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 83  
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 411

<210> 84  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 84  
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 Gly Leu Thr Lys Val Gln Lys Ile Val Ala Ala Ser Glu Phe Leu Arg  
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 Asn Asp Leu Ile Gly Leu Gly Ile Asp Lys Ala Lys Ile Glu Ile Ile  
 35 40 45  
 His Asn Gly Ile Asp His Arg Pro Phe Phe Pro Gln Leu Gln Ile Asp  
 50 55 60  
 Ala Glu Thr Val Thr Ile Lys Pro Phe Ala Ile Lys Arg Pro Tyr Phe  
 65 70 75 80  
 Ile Tyr Gly Ser Arg Leu Ser Gly Pro Glu Lys Lys His Ile Glu Leu  
 85 90 95  
 Ile Lys Ala Phe Ala Leu Phe Lys Glu Arg Thr Lys Ser Pro His Pro  
 100 105 110  
 Leu Val Ile Ala Gly Ala Glu Gly Pro Ser Ser Glu Glu Val His  
 115 120 125

<210> 85  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 85  
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<210> 86  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
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 Asp Lys Ala Arg Ile Leu Asp Ala Val Lys Leu Leu Ser Ser Leu Gly  
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Gly Val Pro Ala Glu Lys Ile Asn Lys Val Leu Glu Gly Arg Pro His
      50              55              60
Ile Val Asp Ala Ile Thr Asn Gly Glu Val Gln Leu Val Phe Asn Thr
      65              70              75              80
Thr Glu Gly Pro Gln Ala Leu Ala Asp Ser Arg Ser Leu Arg Arg Ala
      85              90              95
Ala Leu Leu His Lys Val Pro Tyr Tyr Thr Thr Leu Ser Gly Ala
      100             105             110

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&lt;210&gt; 87

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 87

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355

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&lt;210&gt; 88

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

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Thr Arg Glu Glu Met Gly Ala Ala Gly Leu Asp Arg Lys Val Trp Gln
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Cys Pro Val Val Leu Leu Ser Asp Val His Ser Val Gly Val Gln Gly
      20      25      30
Asp Gly Arg Thr Tyr Gly Ser Pro Ile Val Leu Arg Pro Val Thr Ser
      35      40      45
Glu Asp Ala Met Thr Ala Asp Trp Ala Arg Ile Pro Tyr Asp Val Leu
      50      55      60
Glu Lys Ile Ser Thr Arg Ile Thr Asn Ala Cys Pro Gln Ile Asn Arg
      65      70      75      80
Val Val Leu Asp Ile Thr Ser Lys Pro Pro Ala Thr Ile Glu Trp Glu
      85      90      95

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&lt;210&gt; 89

&lt;211&gt; 351

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 89

## ATTORNEY DOCKET NO.: 15966-543

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<210> 90  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 90  
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 Leu Lys Ser Met Pro Leu Pro Leu Asn Asp Val Thr Gln Ala His Arg  
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 Ser Arg Pro Glu Leu Thr Thr Arg Ala Val His Gln Ile  
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<210> 91  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

<400> 91  
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<210> 92  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 92  
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## ATTORNEY DOCKET NO.: 15966-543

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      20           25           30
Asp Thr Ala Ala Leu Pro Pro Asp Pro Ser Ser Thr Cys Lys Arg Gln
      35           40           45
Leu Gly Val Gly Ala Phe Pro Gly Lys Ala Ala Gly Arg Glu Ser Thr
      50           55           60
Ala Pro Ser Gly Thr Leu Cys Val Leu Ala Ala Pro Gly Thr Cys Arg
65           70           75           80
Arg Pro Cys Trp Ala Ser Thr Cys Arg Ala Pro Gly Ser Cys Val Gly
      85           90           95
Leu Arg Ile Thr Cys Pro Ala Arg Gly Pro Thr
      100          105

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&lt;210&gt; 93

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 93

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nccgcgtacg acaagcagta cctcgagggg cgttacggtg cggacccata cctgagcaac
60
atgctcgaat gggacggcgg acatgagcaa taggccgcc aagcacagcg agaggaagggc
120
ggcgcgctct ggggcctcgc ggatgaagga ggggtggtcg cgcaagagac gccccgcgcc
180
ttttgtaccg ataaatcccg ggcgccacct gatcgtgacc gagggtagca aaacggaacc
240
gctctatttc gaggetatca ggttgctgtt caacaaccgt tatcacggcc agtgggtgac
300
aatggaagtt gtcgttaccg gcaagcatac caggggactt ctcgatcgtg cagtcactct
360
ggcgggaagaa agtgccacag gattcactca cgta
394

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&lt;210&gt; 94

&lt;211&gt; 109

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 94

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Met Leu Ala Gly Asn Asp Asn Phe His Cys His Pro Leu Ala Val Ile
1           5           10           15
Thr Val Val Asp Thr Gln Pro Asp Ser Leu Glu Ile Glu Arg Phe Arg
      20           25           30
Phe Arg Thr Leu Gly His Asp Gln Val Ala Pro Gly Ile Tyr Arg Tyr
      35           40           45
Lys Arg Arg Gly Ala Ser Leu Ala Arg Pro Pro Leu Leu His Pro Arg
      50           55           60
Gly Arg Arg Ala Arg Arg Leu Pro Leu Ala Val Leu Trp Arg Pro Ile
65           70           75           80
Ala His Val Arg Arg Pro Ile Arg Ala Cys Cys Ser Gly Met Gly Pro
      85           90           95
His Arg Asn Ala Pro Arg Gly Thr Ala Cys Arg Thr Arg

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100

105

<210> 95  
 <211> 531  
 <212> DNA  
 <213> Homo sapiens

<400> 95  
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 60  
 tgcttggatc ctaaaatgga ctggtcttgg gtgtgtaacc ccggtgaagt tatagcctcc  
 120  
 ccaaattgag gtgacagaag gaagacaaga ggtgtaagct ggagagggaa gggaagaaat  
 180  
 cagtggcttt ggccagcctc tgtgccaccc agtacgacag aggagtggga actggccctc  
 240  
 tggggctctg cttggccata ggcactgcac attgtgccac ctgctcatca cctcctctag  
 300  
 tctcactctg agcatcggag tacctgttgt gcagacagga aaactgagga gctctgagag  
 360  
 gctgagcatg gagctcacc ccatgcatag ggtgtgggaa gagggcacag gaggcctcat  
 420  
 ccatggggga aagggttgag gatggacatg ggtggggaga gggcatagac atcccttcct  
 480  
 aatctctgtt cccaccacat ttcataggag atgagttagg agatgacagc t  
 531

<210> 96  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 96  
 Met Arg Pro Pro Val Pro Ser Ser His Thr Leu Trp His Gly Val Ser  
 1 5 10 15  
 Ser Met Leu Ser Leu Ser Glu Leu Leu Ser Phe Pro Val Cys Thr Thr  
 20 25 30  
 Gly Thr Pro Met Leu Ser Val Arg Leu Glu Glu Val Met Ser Arg Trp  
 35 40 45  
 His Asn Val Gln Cys Leu Trp Pro Ser Arg Ala Pro Glu Gly Gln Phe  
 50 55 60  
 Pro Leu Leu Cys Arg Thr Gly Trp His Arg Gly Trp Pro Lys Pro Leu  
 65 70 75 80  
 Ile Ser Ser Leu Pro Ser Pro Ala Tyr Thr Ser Cys Leu Pro Ser Val  
 85 90 95  
 Thr Ser Ile Trp Gly Gly Tyr Asn Phe Thr Gly Val Thr His Pro Arg  
 100 105 110  
 Pro Val His Phe Arg Ile Gln Ala Lys Phe Pro Glu  
 115 120

<210> 97  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 97

ggtcgggcca gtcgaacttc attcccgttt cgagggtctt gctgcggatg ggccgtacgc  
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 tcgcgggtgcc ttgcgcgcgg gctggttaggt ggagaagccg cgcgagtacg cgccgtagag  
 120  
 cgacatcgtg tctgagacgt cgaagctcag gccagctttt ggcgctccagg cgcgctcggc  
 180  
 cggtcgcgcc tcttgcgga attgattcag cgcaatcccc gccatcacat gccagcgctt  
 240  
 gtccagggtc atgaaatcct gggcataggc gcgcgaggag cgcagcggcg aattggacag  
 300  
 gcgctcgata ttgggcgtga tgtccgaaga cgggaacggg acccgggggg agaagacgtt  
 360  
 gcccgggaaa agatcccccg acgccatcgt ggtgtcgacc gagat  
 405

&lt;210&gt; 98

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 98

Met	Ala	Ser	Gly	Asp	Leu	Phe	Pro	Gly	Asn	Val	Phe	Ser	Pro	Arg	Val
1				5					10					15	
Pro	Phe	Pro	Ser	Ser	Asp	Ile	Thr	Pro	Asn	Ile	Glu	Arg	Leu	Ser	Asn
		20						25					30		
Ser	Pro	Leu	Arg	Ser	Ser	Arg	Ala	Tyr	Ala	Gln	Asp	Phe	Met	Thr	Leu
		35					40				45				
Asp	Lys	Arg	Trp	His	Val	Met	Ala	Gly	Ile	Ala	Leu	Asn	Gln	Leu	Pro
	50					55					60				
Gln	Glu	Gly	Gly	Pro	Thr	Glu	Arg	Ala	Trp	Thr	Pro	Lys	Leu	Gly	Leu
65				70					75					80	
Ser	Phe	Asp	Val	Ser	Asp	Thr	Met	Ser	Leu	Tyr	Gly	Ala	Tyr	Ser	Arg
			85						90					95	
Gly	Phe	Ser	Thr	Tyr	Gln	Pro	Ala	Arg	Lys	Ala	Pro	Arg	Ala	Tyr	Gly
		100					105						110		
Pro	Ser	Ala	Ala	Arg	Pro	Ser	Lys	Arg	Glu						
		115					120								

&lt;210&gt; 99

&lt;211&gt; 545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 99

acgcgtccgc tcccgatgtc gttgacgagc tgcgctcagc gatgacggta ctcacccatc  
 60  
 tgccccgacg acccagcaaa cgtccccggc tgcttctcat tgaccacgcc gaccggatcg  
 120  
 tcgatcccat cactcgggat ttgctggaat ccctgggttcg cgaagccggc gaggctgcgg  
 180  
 tgatcttggg tgcccagcgt cgcggctcgca tcgattgggt ctccccacag atcatccaca  
 240

acctggccga acaccatttt gagtcgtcct ctggaggtac tcgatgatga ctgaacgttc  
 300  
 ccattccacg atcagggttaa ggtggccggc ggtggtggtt ctgcgtctcg ttccgctgct  
 360  
 ggtggtcgcc ggattggtcc gggacgacct ggcataccac cgaccgggtg ggccgggtga  
 420  
 aagcggccgt cgtcaacgag gacaaggccg tcaaggtgcg tggacaactg gttccgatgg  
 480  
 gccgccaact caccgcccgc ttgatggact ctggctcgca caccactgat ggccacaccg  
 540  
 tcgac  
 545

<210> 100  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 100  
 Met Gly Thr Phe Ser His His Arg Val Pro Pro Glu Asp Asp Ser Lys  
 1 5 10 15  
 Trp Cys Ser Ala Arg Leu Trp Met Ile Cys Gly Glu Ser Gln Ser Met  
 20 25 30  
 Arg Pro Arg Arg Trp Ala Pro Lys Ile Thr Ala Ala Ser Pro Ala Ser  
 35 40 45  
 Arg Thr Arg Asp Ser Ser Lys Ser Arg Val Met Gly Ser Thr Ile Arg  
 50 55 60  
 Ser Ala Trp Ser Met Arg Asn Ser Arg Gly Arg Leu Leu Gly Arg Arg  
 65 70 75 80  
 Gly Arg Trp Val Ser Thr Val Ile Ala Glu Arg Ser Ser Ser Thr Thr  
 85 90 95  
 Ser Gly Ala Asp Ala  
 100

<210> 101  
 <211> 619  
 <212> DNA  
 <213> Homo sapiens

<400> 101  
 ngcgcgccac agaagtgaag aagtaagggtc tcaagcccggt gggagcgttc ttctgttccg  
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 tcatgcacga tccggacttc gatccgatcc ccattggtgaa caaggagctt gacgccttcg  
 120  
 aagctgcggg ggggtgactat ctcatcctcg ccacggattc cggacgcaag ggatacacga  
 180  
 ccgcccgtcc tcacgaggcc ggcggaaaac gctattacca acctggacca gatccgcgaa  
 240  
 gtctgcgcca gccgcaacgt caccgcctgt ctacaccccc attggggaac gatggtccag  
 300  
 aaccgtgacg aagtgatccg cgtgctcgag aactcctcga tcgggctgtg cctggacact  
 360  
 ggtcatctgg cctgtggtgg taccgatgtc gttgagctgg tgcgtaagta cgccaaccgc  
 420

gtcgacattg tccacgccaa agatgtccat aaggagatgg ccgacaagct ttgacctggc  
 480  
 gagatcacct ggtccgaagg cattcgcgcc gggatgttcg caccatcgg cgacggtgat  
 540  
 atcgactttg cagccatcgt gaggtcctt gatgaagccg ggttcgatgg ttattacgtc  
 600  
 ctagagcagg acatcatga  
 619

<210> 102  
 <211> 173  
 <212> PRT  
 <213> Homo sapiens

<400> 102  
 Thr Arg Ser Leu Thr Pro Ser Lys Leu Pro Gly Val Thr Ile Ser Ser  
 1 5 10 15  
 Ser Pro Arg Ile Pro Asp Ala Arg Asp Thr Arg Pro Pro Val Leu Thr  
 20 25 30  
 Arg Pro Ala Glu Asn Ala Ile Thr Asn Leu Asp Gln Ile Arg Glu Val  
 35 40 45  
 Cys Ala Ser Arg Asn Val Thr Ala Cys Leu His Pro His Trp Gly Thr  
 50 55 60  
 Met Val Gln Asn Arg Asp Glu Val Ile Arg Val Leu Glu Asn Ser Ser  
 65 70 75 80  
 Ile Gly Leu Cys Leu Asp Thr Gly His Leu Ala Cys Gly Gly Thr Asp  
 85 90 95  
 Val Val Glu Leu Val Arg Lys Tyr Ala Asn Arg Val Asp Ile Val His  
 100 105 110  
 Ala Lys Asp Val His Lys Glu Met Ala Asp Lys Leu Leu Pro Gly Glu  
 115 120 125  
 Ile Thr Trp Ser Glu Gly Ile Arg Ala Gly Met Phe Ala Pro Ile Gly  
 130 135 140  
 Asp Gly Asp Ile Asp Phe Ala Ala Ile Val Arg Leu Leu Asp Glu Ala  
 145 150 155 160  
 Gly Phe Asp Gly Tyr Tyr Val Leu Glu Gln Asp Ile Met  
 165 170

<210> 103  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<400> 103  
 nnccatgggg gaagacaaca gccatgtggg ggagaccga gccattgggg ggagaccct  
 60  
 gccattgggg ggagaccct gccgtgggga aagaccctg ccatggggga gaccctgcc  
 120  
 actgggggga gaccctgcc gctgggggga gaccgagcc attgggggga gaccctgcc  
 180  
 atggggaaag accctgccca ttgggggaga ntacctgcca ttgggggaga tccctgccgt  
 240  
 tggggggaga tccctgctgt tggggggaga ntccctcctg taggggaaga cccctgcagg  
 300

agtgggtggg gcgaagaccc c  
321

<210> 104  
<211> 107  
<212> PRT  
<213> Homo sapiens

<400> 104  
Xaa His Gly Gly Arg Gln Gln Pro Cys Gly Gly Asp Pro Ser His Trp  
1 5 10 15  
Gly Glu Thr Pro Ala Ile Gly Gly Arg Pro Leu Pro Trp Gly Lys Thr  
20 25 30  
Pro Ala Met Gly Gln Thr Pro Ala Thr Gly Gly Arg Pro Leu Pro Leu  
35 40 45  
Gly Gly Asp Pro Ser His Trp Gly Glu Thr Pro Ala Met Gly Lys Asp  
50 55 60  
Pro Cys His Trp Gly Arg Xaa Pro Ala Ile Gly Gly Asp Pro Cys Arg  
65 70 75 80  
Trp Gly Glu Ile Pro Ala Val Gly Gly Arg Xaa Pro Pro Val Gly Glu  
85 90 95  
Asp Pro Cys Arg Ser Gly Trp Gly Glu Asp Pro  
100 105

<210> 105  
<211> 344  
<212> DNA  
<213> Homo sapiens

<400> 105  
nnntctctcc gaccgcgtcc agatccaccg tggcccgcac gaaccagtcg ttgttgccct  
60  
ccgggtcaac gagggtttgg cgcacggtcc actccgtggc gcccggggtg atgtgcaaca  
120  
gggcgggccc gcgcggggcc gggcctgatt ccagcctctc gtgctcgtcc cagtacccat  
180  
ccagcgcacg gcccagcgg tcggcatccc agccgtggtc gccgtcgagc gccccaggg  
240  
cctcaatgtc gtcacggcg gccagttcca cccggcggaa catctcgttg cggaccatga  
300  
cccgaaggc gcgggaattc tcggtcagtt tcggcgggtgc cggc  
344

<210> 106  
<211> 62  
<212> PRT  
<213> Homo sapiens

<400> 106  
Cys Ala Thr Gly Arg Ala Arg Ala Arg Pro Gly Leu Ile Pro Ala Ser  
1 5 10 15  
Arg Ala Arg Pro Ser Thr His Pro Ala His Arg Pro Ser Gly Arg His  
20 25 30  
Pro Ser Arg Gly Arg Arg Arg Ala Pro Pro Gly Pro Gln Cys Arg His

35                      40                      45  
 Arg Arg Pro Val Pro Pro Gly Gly Thr Ser Arg Cys Gly Pro  
 50                      55                      60

<210> 107  
 <211> 549  
 <212> DNA  
 <213> Homo sapiens

<400> 107  
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 60  
 gccgcttaat aaccgaccaa catgaaactc aagggtgcc ccttcctagc ggggaccctg  
 120  
 cacagaccgg aaaataagggt gttttgctct gccctcctca gttcacgtgg gcaccttgga  
 180  
 aactgaaga aggcattttc cgaactcact gtcctacgga cttattctcc gcactgtttt  
 240  
 cgccctcttc gccctgttct cgtgactgac aggagcaggg gtcacaagca ggcagcccga  
 300  
 gagctctgct cacctggaaa agcatttttg ttagcttaa atgtgaaggc ctcaggcagt  
 360  
 ggctgttgt cctcctccac atgcgcccat cttactctt tcatgtgact ggctgtttt  
 420  
 tgaaggcaag gccctgtca cccttggtta ggccaggtat gttctgcacc gaaaatggcc  
 480  
 ctgccctctg cattggatgg ctactctta ggttggttta ttttagcaaa taagcgttac  
 540  
 agggtaggc  
 549

<210> 108  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 108  
 Met Lys Leu Lys Gly Cys Pro Phe Leu Ala Gly Thr Leu His Arg Pro  
 1                      5                      10                      15  
 Glu Asn Lys Gly Phe Cys Ser Ala Leu Leu Ser Ser Arg Gly His Leu  
 20                      25                      30  
 Gly Thr Leu Lys Lys Ala Phe Ser Glu Leu Thr Val Leu Arg Thr Tyr  
 35                      40                      45  
 Ser Pro His Cys Phe Arg Leu Leu Arg Pro Val Leu Val Thr Asp Arg  
 50                      55                      60  
 Ser Arg Gly His Lys Gln Ala Ala Arg Glu Leu Cys Ser Pro Gly Lys  
 65                      70                      75                      80  
 Ala Phe Leu Cys Ser Leu Asn Val Lys Ala Ser Gly Ser Gly Leu Leu  
 85                      90                      95  
 Ser Ser Ser Thr Cys Ala His Leu His Ser Phe Met  
 100                      105

<210> 109  
 <211> 748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 109

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 60  
 aagtcagaag acttatttgt tctggtacct attctgctgt taataaattg ataaatgagt  
 120  
 gatattgggg taagttacca atttacttta cagcccttaa gtaaataatc tgctttcctc  
 180  
 agcatcatag acttttgaag aggattaatt aagcgcttaa aaaacctgta gactctatta  
 240  
 cagtcagtga aaggaataat tctctttaca aagtaaatgc agttgtttta ttttagacaa  
 300  
 gagtggttcta aacttcgtga agagttaagg cttcaacatg aagaggataa gaagtcagca  
 360  
 atgtctcaac ttttgcagtt gaaagatcga gagaaaaatg cagcaagaga ttcattggcag  
 420  
 aagaaagtag aagatctctt aaaccagatt tccttgctga aacagaatct ggagatacag  
 480  
 ctttccagct ctcagacttc tttgcaacaa ctgcaagccc agtttacgca agaacgacag  
 540  
 cggcttacgc aagagcttga agaattagag gagcaacatc agcaaagaca caaatcatta  
 600  
 aaagaagcac atgtccttgc atttcaaact atggaagagg aaaaggaaaa ggagcaaaga  
 660  
 gctcttgaaa atcattttaca acagaagcat tctgcagagc ttcaatcact aaaagatgca  
 720  
 cacagagagt caatggaggg cttccgga  
 748

&lt;210&gt; 110

&lt;211&gt; 157

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 110

Met	Gln	Leu	Phe	Tyr	Phe	Arg	Gln	Glu	Cys	Ser	Lys	Leu	Arg	Glu	Glu
1				5					10					15	
Leu	Arg	Leu	Gln	His	Glu	Glu	Asp	Lys	Lys	Ser	Ala	Met	Ser	Gln	Leu
			20					25					30		
Leu	Gln	Leu	Lys	Asp	Arg	Glu	Lys	Asn	Ala	Ala	Arg	Asp	Ser	Trp	Gln
			35				40					45			
Lys	Lys	Val	Glu	Asp	Leu	Leu	Asn	Gln	Ile	Ser	Leu	Leu	Lys	Gln	Asn
		50				55					60				
Leu	Glu	Ile	Gln	Leu	Ser	Gln	Ser	Gln	Thr	Ser	Leu	Gln	Gln	Leu	Gln
					70					75				80	
Ala	Gln	Phe	Thr	Gln	Glu	Arg	Gln	Arg	Leu	Thr	Gln	Glu	Leu	Glu	Glu
				85				90						95	
Leu	Glu	Glu	Gln	His	Gln	Gln	Arg	His	Lys	Ser	Leu	Lys	Glu	Ala	His
				100			105						110		
Val	Leu	Ala	Phe	Gln	Thr	Met	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Gln	Arg
			115				120					125			
Ala	Leu	Glu	Asn	His	Leu	Gln	Gln	Lys	His	Ser	Ala	Glu	Leu	Gln	Ser



130 135 140  
 Leu Lys Asp Ala His Arg Glu Ser Met Glu Gly Phe Arg  
 145 150 155

<210> 111  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 111  
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 cgtgaaccgc tcgccccgca ggtcaacgac ttcgggatca ccgggttcga cggcattctc  
 120  
 tcggcttatn nacgccacca gcatncgact ttggtgaga tcatcgacc gttcggacat  
 180  
 ctggtcatga tcgacggaac cgactcattc gatctcatgg ccttcaagtc aaagtcgtta  
 240  
 acggtgacca gcgagtcgat gttcagccgt ccacagtctc cgacgcccga cgtcgccgaa  
 300  
 caaggccggg cactggccag catcgccgac ctgctcgaga aggggcagat ccgtccgacg  
 360  
 atgacccgcc atatcgaggg tctgacaacc cagcatgtgc gtgaggccac cgcagccgtc  
 420  
 ggtccggc  
 429

<210> 112  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 112  
 Ala Arg Pro Glu Ser Ala Gln Trp Cys Gln Asp Met Gly Ala Thr Gly  
 1 5 10 15  
 Ile Ile Asn His Arg Glu Pro Leu Ala Pro Gln Val Asn Asp Phe Gly  
 20 25 30  
 Ile Thr Gly Phe Asp Gly Ile Leu Ser Ala Tyr Xaa Arg His Gln His  
 35 40 45  
 Xaa Thr Leu Ala Glu Ile Ile Ala Pro Phe Gly His Leu Val Met Ile  
 50 55 60  
 Asp Gly Thr Asp Ser Phe Asp Leu Met Ala Phe Lys Ser Lys Ser Leu  
 65 70 75 80  
 Thr Val Thr Ser Glu Ser Met Phe Ser Arg Pro Gln Phe Ala Thr Pro  
 85 90 95  
 Asp Val Ala Glu Gln Gly Arg Ala Leu Ala Ser Ile Ala Asp Leu Val  
 100 105 110  
 Glu Lys Gly Gln Ile Arg Pro Thr Met Thr Arg His Ile Glu Gly Leu  
 115 120 125  
 Thr Thr Gln His Val Arg Glu Ala Thr Ala Ala Val Glu Ser Gly  
 130 135 140

<210> 113  
 <211> 382

<212> DNA  
 <213> Homo sapiens

<400> 113  
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 gtggaccgcc tgccacctgg cttcaacgat gtggacgctc tgtgccgggc gctgtcagct  
 120  
 gtccacagcc ccaccttctg ccagctggcg tgcggccagg atgggcagct gaagggcttc  
 180  
 gcggtgctgg agtatgagac ggctgagatg gcggaggagg cacagcagca ggcggacggc  
 240  
 ctgtccctgg ggggcageca cctgcgagtc tccttctgcg cccctgggac ccccgggcgc  
 300  
 agtatgctgg ccgtctctcat cgttgcccag gccacggccc tcaatcgggg gcagggagtc  
 360  
 ctccccgagc ccaacatcct gc  
 382

<210> 114  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Met Leu Gly Ser Gly Arg Thr Pro Cys Pro Arg Leu Arg Ala Val Ala  
 1 5 10 15  
 Trp Ala Thr Met Arg Ala Ala Ser Ile Leu Arg Pro Gly Val Pro Gly  
 20 25 30  
 Ala Gln Lys Glu Thr Arg Arg Trp Leu Pro Pro Arg Asp Arg Pro Ser  
 35 40 45  
 Ala Cys Cys Cys Ala Ser Ser Ala Ile Ser Ala Val Ser Tyr Ser Ser  
 50 55 60  
 Thr Ala Lys Pro Phe Ser Cys Pro Ser Trp Pro His Ala Ser Trp Gln  
 65 70 75 80  
 Lys Val Gly Leu Trp Thr Ala Asp Ser Ala Arg His Arg Ala Ser Thr  
 85 90 95  
 Ser Leu Lys Pro Gly Gly Arg Arg Ser Thr Gln Arg Gln Gln Glu Trp  
 100 105 110  
 Arg Arg Ala Gly Leu Ser Ser Pro Ala Ser Val Gln Cys  
 115 120 125

<210> 115  
 <211> 4798  
 <212> DNA  
 <213> Homo sapiens

<400> 115  
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 catttcactc cctgtttgga gccatgagtg gccccctgtt gccttcaaga ctgaagccat  
 120  
 ccccatcctt cctcccacca acctagaggc tttgcttcgt aaatgctggc cctttccttc  
 180

atgggctcca cctctgagt gtgtcatgaa ctcttccact tccttgctt ggttcgtatt  
240  
gggtcctctg cccgaggta gagatttgga cgagcccttc tcctccatct tcacagtctc  
300  
catttaccat tagatgccag gccagacag ttgatgaaaa atgtaagaaa cggacccaag  
360  
tataagaaaa agctagatct gtccatttta tttctagttt ttggaagaga tgtggataca  
420  
gagaaatatt actctactat tgaaaaaat atatatcagt ctgattataa atgtcaactc  
480  
atactaagtc aatatcaggg aagcagtgtg gagaaggatg tggcaaactg gagattgctg  
540  
tttccataga aagagggcag ctaatgctta tctccagacc attgttatgc agtaatgtag  
600  
actccatttc accagattta attcttaagg agaaactgga aacttgtatt attatttgat  
660  
tattactttt ggcagttaat tttaaaaatc accgtttagg ccaaaacaac atgacatttg  
720  
tctgggtac aagggtactct tagcgactct tagcttgcaac ttacctttct aatctcaggg  
780  
ctttttacaa agccctcttc tgaattccct gaagatatgc tagcttgaag gctcactgca  
840  
tactetcaac tccccagcca ctccctgtt tccctcttat accagttaat actttgatgt  
900  
tattttttca gtctatttta atctttttaga ctggagggtc cttgaggggtg gggcctaatt  
960  
cttgttttta tcttccccat agcaattatc aagttatctg ctcccttttg cacctaagaa  
1020  
atattagttg ggggtataac tgaatggctg tccttctgcc ttcgttactg cttttgtgga  
1080  
tgttttttc tttgacctc attccacctg tgtgcagtgg agaggatggg tgttgatatt  
1140  
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4440  
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4798

&lt;210&gt; 116

&lt;211&gt; 1062

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 116

Met Met Gly Thr Ser Gln Gly His Val Ala Arg Lys Ser Arg Asn Trp

1		5		10		15
Gly	Leu	Asn	Pro	Ser	Arg	Leu
		20				
Cys	His	Leu	Ser	Pro	Ser	Ser
		35			25	30
Lys	Pro	Pro	Leu	Phe	Asn	Met
		50			40	45
Ala	Gln	Asn	Glu	Ser	Pro	Val
65				70		
Phe	Arg	Asn	Phe	Val	Asp	Ser
		85				
Pro	Thr	Ser	Glu	Val	Leu	Leu
		100				
Pro	Pro	Thr	Val	Ile	Met	Asp
		115				
Arg	Glu	Leu	Asp	Asn	Leu	Gln
130						
Gln	Glu	Ala	Pro	Asn	Gly	Pro
145						
Glu	Ala	Glu	Pro	Tyr	Met	His
		165				
Ser	Ser	His	Ser	Val	Pro	Ser
		180				
Ser	Ser	Val	Asn	Ser	Leu	Ala
		195				
Glu	Glu	Glu	Glu	Glu	Glu	Glu
210						
Glu	Met	Ala	Met	Met	Gln	Gly
225						
Ser	Ile	Ile	His	Arg	Leu	Pro
		245				
Tyr	Gln	Pro	Glu	Ile	Thr	Pro
		260				
Ala	Pro	Thr	Ser	Thr	Thr	Ser
		275				
Asn	Arg	Asp	His	Phe	Ala	Thr
290						
Gln	Ile	Gln	Glu	His	Glu	Gln
305						
Gly	Tyr	Lys	Arg	Met	Arg	Arg
		325				
Glu	Ser	Arg	Leu	Arg	Gly	Glu
		340				
Arg	Glu	Leu	Glu	Ala	Gln	Arg
		355				
Leu	Ala	Arg	Arg	His	Gln	Ala
370						
Gln	Ala	Glu	Glu	Arg	Lys	Phe
385						
Lys	Glu	Leu	Ala	Ala	Leu	Leu
		405				
Arg	Lys	Glu	Gln	Leu	Lys	Glu
		420				
Lys	Arg	Glu	Lys	Ala	Glu	Trp

435				440				445							
Gln	Cys	Gln	Ala	Glu	Glu	Glu	Ala	Gly	Leu	Leu	Arg	Arg	Gln	Arg	Gln
450				455				460							
Tyr	Phe	Glu	Leu	Gln	Cys	Arg	Gln	Tyr	Lys	Arg	Lys	Met	Leu	Leu	Ala
465				470				475				480			
Arg	His	Ser	Leu	Asp	Gln	Asp	Leu	Leu	Arg	Glu	Asp	Leu	Asn	Lys	Lys
485				490				495							
Gln	Thr	Gln	Lys	Asp	Leu	Glu	Cys	Ala	Leu	Leu	Leu	Arg	Gln	His	Glu
500				505				510							
Ala	Thr	Arg	Glu	Leu	Glu	Leu	Arg	Gln	Leu	Gln	Ala	Val	Gln	Arg	Thr
515				520				525							
Arg	Ala	Glu	Leu	Thr	Arg	Leu	Gln	His	Gln	Thr	Glu	Leu	Gly	Asn	Gln
530				535				540							
Leu	Glu	Tyr	Asn	Lys	Arg	Arg	Glu	Gln	Glu	Leu	Arg	Gln	Lys	His	Ala
545				550				555				560			
Ala	Gln	Val	Arg	Gln	Gln	Pro	Lys	Ser	Leu	Lys	Val	Arg	Ala	Gly	Gln
565				570				575							
Arg	Pro	Pro	Gly	Leu	Pro	Leu	Pro	Ile	Pro	Gly	Ala	Leu	Gly	Pro	Pro
580				585				590							
Asn	Thr	Gly	Thr	Pro	Ile	Glu	Gln	Gln	Pro	Cys	Ser	Pro	Gly	Gln	Glu
595				600				605							
Ala	Val	Leu	Asp	Gln	Arg	Met	Leu	Gly	Glu	Glu	Glu	Glu	Ala	Val	Gly
610				615				620							
Glu	Arg	Arg	Ile	Leu	Gly	Lys	Glu	Gly	Ala	Thr	Leu	Glu	Pro	Lys	Gln
625				630				635				640			
Gln	Arg	Ile	Leu	Gly	Glu	Glu	Ser	Gly	Ala	Pro	Ser	Pro	Ser	Pro	Gln
645				650				655							
Lys	His	Gly	Ser	Leu	Val	Asp	Glu	Glu	Val	Trp	Gly	Leu	Pro	Glu	Glu
660				665				670							
Ile	Glu	Glu	Leu	Arg	Val	Pro	Ser	Leu	Val	Pro	Gln	Glu	Arg	Ser	Ile
675				680				685							
Val	Gly	Gln	Glu	Glu	Ala	Gly	Thr	Trp	Ser	Leu	Trp	Gly	Lys	Glu	Asp
690				695				700							
Glu	Ser	Leu	Leu	Asp	Glu	Glu	Phe	Glu	Leu	Gly	Trp	Val	Gln	Gly	Pro
705				710				715				720			
Ala	Leu	Thr	Pro	Val	Pro	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Gly	Ala
725				730				735							
Pro	Ile	Gly	Thr	Pro	Arg	Asp	Pro	Gly	Asp	Gly	Cys	Pro	Ser	Pro	Asp
740				745				750							
Ile	Pro	Pro	Glu	Pro	Pro	Pro	Thr	His	Leu	Arg	Pro	Cys	Pro	Ala	Ser
755				760				765							
Gln	Leu	Pro	Gly	Leu	Leu	Ser	His	Gly	Leu	Leu	Ala	Gly	Leu	Ser	Phe
770				775				780							
Ala	Val	Gly	Ser	Ser	Ser	Gly	Leu	Leu	Pro	Leu	Leu	Leu	Leu	Leu	Leu
785				790				795				800			
Leu	Pro	Leu	Leu	Ala	Ala	Gln	Gly	Gly	Gly	Gly	Leu	Gln	Ala	Ala	Leu
805				810				815							
Leu	Ala	Leu	Glu	Val	Gly	Leu	Val	Gly	Leu	Gly	Ala	Ser	Tyr	Leu	Leu
820				825				830							
Leu	Cys	Thr	Ala	Leu	His	Leu	Pro	Ser	Ser	Leu	Phe	Leu	Leu	Leu	Ala
835				840				845							
Gln	Gly	Thr	Ala	Leu	Gly	Ala	Val	Leu	Gly	Leu	Ser	Trp	Arg	Arg	Gly
850				855				860							
Leu	Met	Gly	Val	Pro	Leu	Gly	Leu	Gly	Ala	Ala	Trp	Leu	Leu	Ala	Trp

```

865          870          875          880
Pro Gly Leu Ala Leu Pro Leu Val Ala Met Ala Ala Gly Gly Arg Trp
          885          890          895
Val Arg Gln Gln Gly Pro Arg Val Arg Arg Gly Ile Ser Arg Leu Trp
          900          905          910
Leu Arg Val Leu Leu Arg Leu Ser Pro Met Ala Phe Arg Ala Leu Gln
          915          920          925
Gly Cys Gly Ala Val Gly Asp Arg Gly Leu Phe Ala Leu Tyr Pro Lys
          930          935          940
Thr Asn Lys Asp Gly Phe Arg Ser Arg Leu Pro Val Pro Gly Pro Arg
945          950          955          960
Arg Arg Asn Pro Arg Thr Thr Gln His Pro Leu Ala Leu Leu Ala Arg
          965          970          975
Val Trp Val Leu Cys Lys Gly Trp Asn Trp Arg Leu Ala Arg Ala Ser
          980          985          990
Gln Gly Leu Ala Ser His Leu Pro Pro Trp Ala Ile His Thr Leu Ala
          995          1000          1005
Ser Trp Gly Leu Leu Arg Gly Glu Arg Pro Thr Arg Ile Pro Arg Leu
1010          1015          1020
Leu Pro Arg Ser Gln Arg Gln Leu Gly Pro Pro Ala Ser Arg Gln Pro
1025          1030          1035          1040
Leu Pro Gly Thr Leu Ala Gly Arg Arg Ser Arg Thr Arg Gln Ser Arg
          1045          1050          1055
Ala Leu Pro Pro Trp Arg
1060

```

<210> 117  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

```

<400> 117
nacgcgttga cgatctgtct ggctgggtgta gtgatctgcg ctgtgggtgt cgtcgatgac
60
ctgctcgacc ttcctgcctt ggccaaggca gctggccagg tattageggc cggcatcgtc
120
gtcacgggcg gagtgcgaat gttttggatc cgcgtgccga actccatcat tgctttgggg
180
acgcctactt cgatcttggg gacgggtgttc ttcattgtgt tgtgcgccaa tgcgggtgaat
240
ttcattgatg gacttgacgg cctggcatcc ggtgtggtgg ccatcgggtc cttggctttc
300
tttcataca cctacctgct ggctcacgaa caggactttg ttgttgcgac gactaccagt
360
ctcattacgg ctgcgacggc gggcgccctgt ctcggttttt tgccccacaa ctggcatccg
420
gcgaggatgt tcatgggtga ttccggagct ctgctacttg gcttattgct a
471

```

<210> 118  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 118

```

Xaa Ala Leu Thr Ile Cys Leu Ala Gly Val Val Ile Cys Ala Val Gly
 1           5           10           15
Val Val Asp Asp Leu Leu Asp Leu Pro Ala Leu Ala Lys Ala Ala Gly
      20           25           30
Gln Val Leu Ala Ala Gly Ile Val Val Thr Gly Gly Val Arg Met Phe
      35           40           45
Trp Ile Pro Leu Pro Asn Ser Ile Ile Ala Leu Gly Thr Pro Thr Ser
      50           55           60
Ile Leu Val Thr Val Phe Phe Ile Val Leu Cys Ala Asn Ala Val Asn
65           70           75           80
Phe Ile Asp Gly Leu Asp Gly Leu Ala Ser Gly Val Val Ala Ile Gly
      85           90           95
Ser Leu Ala Phe Phe Ser Tyr Thr Tyr Leu Leu Ala His Glu Gln Asp
      100          105          110
Phe Val Val Ala Thr Thr Thr Ser Leu Ile Thr Ala Ala Thr Ala Gly
      115          120          125
Ala Cys Leu Gly Phe Leu Pro His Asn Trp His Pro Ala Arg Met Phe
      130          135          140
Met Gly Asp Ser Gly Ala Leu Leu Leu Gly Leu Leu Leu
145          150          155

```

&lt;210&gt; 119

&lt;211&gt; 302

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 119

```

ntcaaacatg agcagtcgtg gcggccgagg ccgcggtggc tattatcgcg agctttatgg
60
tagccgaggt cgaggcagta aatctaataa aactttcgca aaaaattcgg atgtctactc
120
tcagaaaaag actcgaacag tacgaggcac ctccgaagat ttagcacgat cgctccataa
180
gcttcatatg cgcccgatcc ctgcgtatca tgacattgag ggtatgtggg ctttcccagc
240
ctttactttt tatctggatc atgcacaagc agaccatac gctgccccaa ataaggcacg
300
cn
302

```

&lt;210&gt; 120

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 120

```

Met Ser Ser Arg Gly Gly Arg Gly Arg Gly Gly Tyr Tyr Arg Glu Leu
 1           5           10           15
Tyr Gly Ser Arg Gly Arg Gly Ser Lys Ser Asn Glu Thr Phe Ala Lys
      20           25           30
Asn Ser Asp Val Tyr Ser Gln Lys Lys Thr Arg Thr Val Arg Gly Thr
      35           40           45
Ser Glu Asp Leu Ala Arg Ser Leu His Lys Leu His Met Arg Pro Tyr

```

```

      50              55              60
Pro Ala Tyr His Asp Ile Glu Gly Met Trp Ala Phe Pro Ala Phe Thr
65              70              75              80
Phe Tyr Leu Asp His Ala Gln Ala Asp Pro Tyr Ala Ala Pro Asn Lys
      85              90              95
Ala Arg

```

```

<210> 121
<211> 318
<212> DNA
<213> Homo sapiens

```

```

<400> 121
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cctaaaggat ttgccgcatt acaggaaagt tttttggtta gtttgggggt gtttctgtgc
120
tgtgtgagaa ggagtagaag cagctccagt agagtgggcc ttttcatttt tatccagagg
180
aaattttagt gctgtggcta ttacttcctt tttttctttt tttttttttg ttttagagaca
240
gagctgnct ctgtcgccag gctggagtga agtggcacga tctcagctca ctgcaacctc
300
tgctctccag gttcaagc
318

```

```

<210> 122
<211> 89
<212> PRT
<213> Homo sapiens

```

```

<400> 122
Xaa Met Gly Gly Pro Gly Thr Ala Leu Val Pro Leu Phe Phe Leu Gly
1              5              10              15
Lys Lys Leu Ser Pro Lys Gly Phe Ala Ala Leu Gln Glu Ser Phe Leu
20              25              30
Val Ser Leu Gly Leu Phe Leu Cys Cys Val Arg Arg Ser Arg Ser Ser
35              40              45
Ser Ser Arg Val Gly Leu Phe Ile Phe Ile Gln Arg Lys Phe Val Gly
50              55              60
Cys Gly Tyr Tyr Phe Leu Phe Phe Leu Phe Phe Cys Leu Glu Thr
65              70              75              80
Glu Ser Xaa Ser Val Ala Arg Leu Glu
85

```

```

<210> 123
<211> 338
<212> DNA
<213> Homo sapiens

```

```

<400> 123
acgcgtctag ggtagaaatc aactccagta actgtcattc aacctcagca atgctgggga
60

```

cgggcagagg cagggcagct gtgtgccaca ttcttgccag ggctgggtcag gccccggctc  
 120  
 tcaccactcc tcctccctgc tttgaacctg tggaacaaag ggcccttgca cccaactca  
 180  
 ttctcttttg ccacataagg gcctcaagtc atgctgtccc ctctgcctgg gttgcttttt  
 240  
 ctccctctgc ttgggtcact gttcacacca ctggccactt tcctcagggg agggccctca  
 300  
 ctgccacac acctaaacat gccccctgct cctccata  
 338

<210> 124  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 124  
 Met Leu Gly Thr Gly Arg Gly Arg Ala Ala Val Cys His Ile Pro Ala  
 1 5 10 15  
 Arg Ala Gly Gln Ala Pro Ala Leu Thr Thr Pro Pro Pro Cys Phe Glu  
 20 25 30  
 Pro Val Glu Gln Arg Ala Pro Ala Pro Gln Leu Ile Pro Leu Cys His  
 35 40 45  
 Ile Arg Ala Ser Ser His Ala Val Pro Ser Ala Trp Val Ala Phe Ser  
 50 55 60  
 Pro Ser Ala Trp Val Thr Val His Thr Thr Gly His Phe Pro Gln Gly  
 65 70 75 80  
 Arg Ala Leu Thr Ala His Thr Pro Lys His Ala Pro Cys Ser Ser Ile  
 85 90 95

<210> 125  
 <211> 280  
 <212> DNA  
 <213> Homo sapiens

<400> 125  
 ccatggacct ggccagccac catcacctgc ctctgcctc acccaccctg ggtgcctgcc  
 60  
 ggcaaggatt ggagggcaga ctgctggagc gtgagaccag gccaatctgt ctttctggga  
 120  
 accttcagcc tccaactgga gctgactgtc aactttcggg tgagaagtca ctttctgca  
 180  
 ttccaccac actatctatc tgtgcaatac ggcagcgtga cagcactcac cttattgagg  
 240  
 gcttctgctg tcctggccca ttctggatag gctgatcta  
 280

<210> 126  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 126  
 Met Asp Leu Ala Ser His His His Leu Pro Pro Ala Ser Pro Thr Leu

```

      1           5           10           15
Gly Ala Cys Arg Gln Gly Leu Glu Gly Arg Leu Leu Glu Arg Glu Thr
      20           25           30
Arg Pro Ile Cys Leu Ser Gly Asn Leu Gln Pro Pro Thr Gly Ala Asp
      35           40           45
Cys Gln Leu Ser Gly Glu Lys Ser Leu Phe Cys Ile Pro Thr Thr Leu
      50           55           60
Ser Ile Cys Ala Ile Arg Gln Arg Asp Ser Thr His Leu Ile Glu Gly
      65           70           75           80
Phe Cys Cys Pro Gly Pro Phe Trp Ile Gly Leu Ile
      85           90

```

<210> 127  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

```

<400> 127
cgcggtgatcg ccgtggcgga gggccgcggc gccgactcga tcgcccagct gacaaccgag
60
ctgcaaagcc gtcactgccc tgcggagcag atcacgtccg tcagcatcga catgtcgcca
120
gcgttcacatca ggggctgcgc cgagcacctg cccaacgcgc gcgtcacctt cgacaagttc
180
cacgtcatcg ggcacgcca tgcggccgtg gacaggatgc gccgcatcga gcagcgcagc
240
gacaagtccc tcaaggggat gcgctggctg ctgctgaaga accgcgccag cctcaagccc
300
gaggctgccc cccatctgga tgccctgac gccaggatgg cactgtgctg caccgcgcgc
360
gcctgggtct acaaggagca gctgcgcgag atcctcgcgc gcaagcagat caacgtggca
420
cgcgacatgc tcaagcactg gtgc
444

```

<210> 128  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

```

<400> 128
Arg Val Ile Ala Val Ala Glu Gly Arg Gly Ala Asp Ser Ile Ala Gln
      1           5           10           15
Leu Thr Thr Glu Leu Gln Ser Arg His Cys Pro Ala Glu Gln Ile Thr
      20           25           30
Ser Val Ser Ile Asp Met Ser Pro Ala Phe Ile Arg Gly Cys Ala Glu
      35           40           45
His Leu Pro Asn Ala Arg Val Thr Phe Asp Lys Phe His Val Ile Gly
      50           55           60
His Ala Asn Ala Ala Val Asp Arg Met Arg Arg Ile Glu Gln Arg Ser
      65           70           75           80
Asp Lys Ser Leu Lys Gly Met Arg Trp Ser Leu Leu Lys Asn Arg Ala
      85           90           95
Ser Leu Lys Pro Glu Ala Ala Ala Asp Leu Asp Ala Leu Ile Ala Arg

```

```

          100          105          110
Met Ala Thr Val Arg Thr Ala Arg Ala Trp Val Tyr Lys Glu Gln Leu
          115          120          125
Arg Glu Ile Leu Ala Arg Lys Gln Ile Asn Val Ala Arg Asp Met Leu
          130          135          140
Lys His Trp Cys
145

```

```

<210> 129
<211> 291
<212> DNA
<213> Homo sapiens

```

```

<400> 129
gaggaggac gtaccgtccc cgttatagcc aagctcgaga agccgcaagc tatcgagaac
60
ttggacgaga ttattgacgt ctttgacgcc gtcattggtg cccgtggcga tatggccgtc
120
gagtgtccgc tcgaggaagt tccgtgatc caaaagcaga tcatcgagaa ggctcgttta
180
caggctaagc ccgtcattgt ggccaccag atgcttgagt cgatgatcca cgctccccgt
240
ccgacccgcg ctgaggccgc cgacgtcgcg aacgccatcc ttgacggcgc g
291

```

```

<210> 130
<211> 97
<212> PRT
<213> Homo sapiens

```

```

<400> 130
Glu Glu Gly Arg Thr Val Pro Val Ile Ala Lys Leu Glu Lys Pro Gln
1      5      10      15
Ala Ile Glu Asn Leu Asp Glu Ile Ile Asp Val Phe Asp Ala Val Met
20     25     30
Val Ala Arg Gly Asp Met Ala Val Glu Cys Pro Leu Glu Glu Val Pro
35     40     45
Leu Ile Gln Lys Gln Ile Ile Glu Lys Ala Arg Leu Gln Ala Lys Pro
50     55     60
Val Ile Val Ala Thr Gln Met Leu Glu Ser Met Ile His Ala Pro Arg
65     70     75     80
Pro Thr Arg Ala Glu Ala Ala Asp Val Ala Asn Ala Ile Leu Asp Gly
85     90     95
Ala

```

```

<210> 131
<211> 416
<212> DNA
<213> Homo sapiens

```

```

<400> 131
tccggagcgt ccgtggccct catgggtgtg tcagcgtggt tgctgtctcg ggccgcagag
60

```

attccaccgg tgctctacct ggaggccgca gccgtcgggg ttcgattctt cggcatctcc  
 120  
 cgcgggtgtct tccgtacgc cgaacgtctg gtaggccacg acctgggtct gcggatgcag  
 180  
 ggggcattgc ggatgcgggt ctacgaccgg ctgtcacgta ccnaccctgc tgggnnacgt  
 240  
 cgccgggggtg acctgctggt acgggttact gccgacgtcg acgcggtgtt ggacatggtc  
 300  
 gtgcgggtga tcgttccggc gtgcgcgtca agcctcgtca tcattggcac cacggtcctt  
 360  
 ctttgtccga gagaagggtg agttttctta gccggattcc aacacagcct gggggc  
 416

<210> 132

<211> 126

<212> PRT

<213> Homo sapiens

<400> 132

Ser	Gly	Ala	Ser	Val	Ala	Leu	Met	Gly	Val	Ser	Ala	Trp	Leu	Leu	Ser
1				5					10					15	
Arg	Ala	Ala	Glu	Ile	Pro	Pro	Val	Leu	Tyr	Leu	Glu	Ala	Ala	Ala	Val
			20					25						30	
Gly	Val	Arg	Phe	Phe	Gly	Ile	Ser	Arg	Gly	Val	Phe	Arg	Tyr	Ala	Glu
			35				40					45			
Arg	Leu	Val	Gly	His	Asp	Leu	Ala	Leu	Arg	Met	Gln	Gly	Ala	Leu	Arg
			50				55				60				
Met	Arg	Val	Tyr	Asp	Arg	Leu	Ser	Arg	Thr	Xaa	Pro	Ala	Gly	Xaa	Arg
					70					75					80
Arg	Arg	Gly	Asp	Leu	Leu	Val	Arg	Val	Thr	Ala	Asp	Val	Asp	Ala	Val
					85					90					95
Leu	Asp	Met	Val	Val	Arg	Val	Ile	Val	Pro	Ala	Cys	Ala	Ser	Ser	Leu
					100				105					110	
Val	Ile	Ile	Gly	Thr	Thr	Val	Leu	Leu	Cys	Pro	Arg	Glu	Gly		
			115				120						125		

<210> 133

<211> 327

<212> DNA

<213> Homo sapiens

<400> 133

gccgttgcta tcgtgctgg tatgcgtgca gacgtcactg tttttgatat caatatcgct  
 60  
 gcgttgaaga gactcgccga catctaccag ggtcgtgttc acacagtagt atccaccgcg  
 120  
 gccgaaattg cgaaggcgct agaaaccgct gacgttgtga tcggttctgt ccttattccg  
 180  
 ggtagttcta ccccgaagct tgttactacc gatatggttg ctcacatgca gcctgggtct  
 240  
 gttcttattg atattgctat agaccaaggc ggctgcttcg aggattcgca ccccaccact  
 300  
 tacgatgacc ccactttcac tgtgcac  
 327

<210> 134  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 134  
 Ala Val Ala Ile Ala Ala Gly Met Arg Ala Asp Val Thr Val Phe Asp  
 1 5 10 15  
 Ile Asn Ile Ala Ala Leu Lys Arg Leu Ala Asp Ile Tyr Gln Gly Arg  
 20 25 30  
 Val His Thr Val Val Ser Thr Arg Ala Glu Ile Ala Lys Ala Leu Glu  
 35 40 45  
 Thr Ala Asp Val Val Ile Gly Ser Val Leu Ile Pro Gly Ser Ser Thr  
 50 55 60  
 Pro Lys Leu Val Thr Thr Asp Met Val Ala His Met Gln Pro Gly Ser  
 65 70 75 80  
 Val Leu Ile Asp Ile Ala Ile Asp Gln Gly Gly Cys Phe Glu Asp Ser  
 85 90 95  
 His Pro Thr Thr Tyr Asp Asp Pro Thr Phe Thr Val His  
 100 105

<210> 135  
 <211> 560  
 <212> DNA  
 <213> Homo sapiens

<400> 135  
 taagatgtgg tcctgccctg ttcttgaagg ggctgcagct ctgatggaaa atacagggat  
 60  
 ttacactcag ggctacagcc acgggggggt gaggcccaag gctgcaatct cgggggaagg  
 120  
 ggaagtggc ttttcttggg ggattggaaa catcctcttg gaggcaaaga cttttcttgg  
 180  
 atcttacaga cttccggga ttttttagatt agaatttgg gggcaaagga ggctgtcttg  
 240  
 ttttaaagca atgctacata gacacagtgg ggaagacctg gttcgacggc agataagcag  
 300  
 tgggtgatgg gcttgaggag gagagtcagg gcaaagtcta agactgagca gaaaggaatt  
 360  
 ccccatctc ccatggataa gtacgttcta gaacattctc tttgggtcta atactctgaa  
 420  
 atgacatctt gtcttcatgc tcgagagaga attacttcac tggctccact tggagtgccca  
 480  
 gtgttcagac accaagcctg actgggaggg ttccgttttc ttaacacctt cccaccgccc  
 540  
 acttccaagt cccacgcgt  
 560

<210> 136  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 136

```

Met Trp Ser Cys Pro Val Pro Glu Gly Ala Ala Ala Leu Met Glu Asn
 1           5           10           15
Thr Gly Ile Tyr Thr Gln Gly Tyr Ser His Gly Gly Leu Arg Pro Lys
      20           25           30
Ala Ala Ile Ser Gly Glu Gly Glu Val Gly Phe Ser Trp Trp Ile Gly
      35           40           45
Asn Ile Leu Leu Glu Ala Lys Thr Phe Pro Gly Ser Tyr Arg Leu Pro
      50           55           60
Gly Ile Phe Arg Leu Glu Tyr Trp Gly Gln Arg Arg Leu Ser Cys Phe
65           70           75           80
Lys Ala Met Leu His Arg His Ser Gly Glu Asp Leu Val Arg Arg Gln
      85           90           95
Ile Ser Ser Gly
      100

```

&lt;210&gt; 137

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 137

```

accggttgga tggcctgcag gccaaagcgt tcctgcaaac tcagcaggcc ttcagcgcaa
60
gaggcaaaaca gctggtcgcg cacctgcttg aggtccaccg attgcgcata gcccttgagc
120
aaggcgcgcc agttggtttt gtcggccact tggctgcgga acaggctctc gacaaaaccg
180
gactgctggc gggctgcgaac gcgcatgatc ggcagcgcct ggctggcgcc ctggtcgagc
240
cagcgcgtcg gcagttgggt ggcccggtg ataccgacct tgatccccga cgaattggcc
300
aggtacacca catggtcggt catgcagaat gtttcgcccc agccgggatc acggcaagtg
360
ccggcgtcgt aatggcaacg ttcggggctc atgatgcaca ggtcacactg ggccagcttg
420
gtcatgccc
429

```

&lt;210&gt; 138

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 138

```

Met Thr Lys Leu Ala Gln Cys Asp Leu Cys Ile Met Ser Pro Glu Arg
 1           5           10           15
Cys His Tyr Asp Ala Gly Thr Cys Arg Asp Pro Gly Trp Gly Glu Thr
      20           25           30
Phe Cys Met Thr Asp His Val Val Tyr Leu Ala Asn Ser Ser Gly Ile
      35           40           45
Lys Val Gly Ile Thr Arg Ala Thr Gln Leu Pro Thr Arg Trp Leu Asp
      50           55           60
Gln Gly Ala Ser Gln Ala Leu Pro Ile Met Arg Val Ala Thr Arg Gln

```



```

65          70          75          80
Gln Ser Gly Phe Val Glu Asp Leu Phe Arg Ser Gln Val Ala Asp Lys
          85          90          95
Thr Asn Trp Arg Ala Leu Leu Lys Gly Asp Ala Gln Ser Val Asp Leu
          100          105          110
Lys Gln Val Arg Asp Gln Leu Phe Ala Ser Cys Ala Glu Gly Leu Leu
          115          120          125
Ser Leu Gln Glu Arg Phe Gly Leu Gln Ala Ile Gln Pro
          130          135          140

```

<210> 139  
 <211> 341  
 <212> DNA  
 <213> Homo sapiens

```

<400> 139
acgcgtcggt tgaaggcttg atccgcacgt ccaattcgct ttgcgccaat gcgccgcagc
60
ttgtgaacag cagaatcaag ccgctggtaa atcttcctgg gagcttcata ggcggggatg
120
ctacacgagc tggggagaca ctttgaaccc ggaattgtct gaataattct gtctcaaacc
180
tttgagcct gtaacgactg aggggttcgga tggaaaaaca catgctccag gatgggaccg
240
acggccactt caccgatctc ttcatagccc tggcgtttgt agaaatccag gtagcgcgaa
300
tcgccagcgt cgagcacgac gcctgatgag tgcgggtcat t
341

```

<210> 140  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

```

<400> 140
Met Thr Arg Thr His Gln Ala Ser Cys Ser Thr Leu Ala Ile Arg Ala
1          5          10          15
Thr Trp Ile Ser Thr Asn Ala Arg Ala Met Lys Arg Ser Val Lys Trp
          20          25          30
Pro Ser Val Pro Ser Trp Ser Met Cys Phe Ser Ile Arg Thr Leu Ser
          35          40          45
Arg Tyr Arg Leu Gln Arg Phe Glu Thr Glu Leu Phe Arg Gln Phe Arg
          50          55          60
Val Gln Ser Val Ser Pro Ala Arg Val Ala Ser Pro Pro Met Lys Leu
65          70          75          80
Pro Gly Arg Phe Thr Ser Gly Leu Ile Leu Leu Phe Thr Ser Cys Gly
          85          90          95
Ala Leu Ala Gln Ser Glu Leu Asp Val Arg Ile Lys Pro Ser Asn Asp
          100          105          110
Ala

```

<210> 141  
 <211> 324

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 141

gaattcctct tggatagctt cgggtaaattg ggtacagcaa atatcaggag cgcaaccgca  
 60  
 acctttactt actggtacat gaacaccatt tacattacag ctatcgtact caccacacgt  
 120  
 catgtgaaca gacacataac tgaaggggtt ataaaccaca gtctcacggt acgtatgacc  
 180  
 gtcaactgtg aacaccgcta agtaatagcc tgcgggggct tgcattgaact cctttgacca  
 240  
 tgcgtaataa atacgtccgt cattagtcac acctgatggg gcgaaacaaa aagaacggca  
 300  
 gcagttatca ccgcccatac gcgt  
 324

&lt;210&gt; 142

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 142

Met	Gly	Gly	Asp	Asn	Cys	Cys	Arg	Ser	Phe	Cys	Phe	Ala	Pro	Ser	Gly
1				5					10					15	
Val	Thr	Asn	Asp	Gly	Arg	Ile	Tyr	Tyr	Ala	Trp	Ser	Lys	Glu	Phe	Met
			20					25					30		
Gln	Ala	Pro	Ala	Gly	Tyr	Tyr	Leu	Ala	Val	Phe	Thr	Val	Asp	Gly	His
		35				40					45				
Thr	Tyr	Arg	Glu	Thr	Val	Val	Tyr	Lys	Pro	Phe	Ser	Tyr	Val	Ser	Val
	50				55					60					
His	Met	Thr	Trp	Gly	Glu	Tyr	Asp	Ser	Cys	Asn	Val	Asn	Gly	Val	His
65				70					75				80		
Val	Pro	Val	Ser	Lys	Gly	Cys	Gly	Cys	Ala	Pro	Asp	Ile	Cys	Cys	Thr
			85					90					95		
His	Leu	Pro	Glu	Ala	Ile	Gln	Glu	Glu	Phe						
			100					105							

&lt;210&gt; 143

&lt;211&gt; 1325

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 143

nacgcgtgga tctgccagct gagcctggag ctgtgcaggc agctgccctg ctacgatgag  
 60  
 gcaccccagg agaagaactt cctgtacaaa tgcattaggca ccaccctggg tgctgcttca  
 120  
 agtaaggagg tggtagaggaa gcaccttcaa gagctgctgg agacggccag ataccaggag  
 180  
 gaggcagaac gcgagggcct cgcctgctgc ttccgggatct gtgccatctc ccacctcgag  
 240  
 gacacgctgg ccagctgga ggacttcgtg aggtcagagg tcttcagaaa atccattggc  
 300

attctcaaca tttttaagga tcgaagtgaag aacgaagtgg agaagggtgaa gagtgctctg  
 360  
 atcctgtgct atgggacagt ggcggcccgg gccccccggg agctgggtgct ggccaaggta  
 420  
 gagtcagaca tcctccggaa catcntgcca gcacttcagc acnncaagga cccagccctg  
 480  
 aagctgtgcc ttgtccagag tgtgtgcatg gtcagccggc ccatctgcag cagcaccag  
 540  
 gctggctcct tccacttcac ccggaagca gagctggtgg cacagatgat ggagttcatc  
 600  
 agggcagagc ccccgactc cttgaggaca cctattcgga agaaagccat gctcacctgc  
 660  
 acttacttgg tctccgtgga gccagcgctg gacgagcagg cccgggaggga tgtgatccat  
 720  
 ggctgcctgc acagcatcat ggccctgctg cctgagccca aggaggagga cggaggctgc  
 780  
 cagaagtcct tgtatctgga gacactgcac gcccttgagg atctgctgac gagcctcctg  
 840  
 cagcggaaaca tgacccccca aggcctgcag atcatgattg agcacctgag cccatggatc  
 900  
 aagtccccaa gaggtcacgt agcggcgctg gccctaggcc tgagcgccct cctcgtgcgc  
 960  
 tacttcttgg agcacctgag tgtcagtggc gcccaagtag ataccaggtt tccatctgag  
 1020  
 cccaggatcc tgtgcaatgg ccctggtgcc cttccacaac ctgggccttc tcateggcct  
 1080  
 cttctcccca cgggtgtgagg acctgtggcc tgccaccgac caggaggccg tggactgtgt  
 1140  
 ctactccctg ctgtacctcc agctcggcta tgagggtctc tcccgggact accgcgatga  
 1200  
 cgtggcggag cggctcctca gcctcaagga cggcctcgtg caccctgacc ccgccattct  
 1260  
 cttccacacc tgccacagt taggccagat tattgccaag cgctccccc cagcccttca  
 1320  
 cgcgt  
 1325

&lt;210&gt; 144

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 144

Xaa	Ala	Trp	Ile	Cys	Gln	Leu	Ser	Leu	Glu	Leu	Cys	Arg	Gln	Leu	Pro
1				5					10					15	
Cys	Tyr	Asp	Glu	Ala	Pro	Gln	Glu	Lys	Asn	Phe	Leu	Tyr	Lys	Cys	Ile
		20						25					30		
Gly	Thr	Thr	Leu	Gly	Ala	Ala	Ser	Ser	Lys	Glu	Val	Val	Arg	Lys	His
		35					40					45			
Leu	Gln	Glu	Leu	Leu	Glu	Thr	Ala	Arg	Tyr	Gln	Glu	Glu	Ala	Glu	Arg
	50					55				60					
Glu	Gly	Leu	Ala	Cys	Cys	Phe	Gly	Ile	Cys	Ala	Ile	Ser	His	Leu	Glu
65				70					75					80	
Asp	Thr	Leu	Ala	Gln	Leu	Glu	Asp	Phe	Val	Arg	Ser	Glu	Val	Phe	Arg

					85					90					95				
Lys	Ser	Ile	Gly	Ile	Leu	Asn	Ile	Phe	Lys	Asp	Arg	Ser	Glu	Asn	Glu				
			100					105					110						
Val	Glu	Lys	Val	Lys	Ser	Ala	Leu	Ile	Leu	Cys	Tyr	Gly	His	Val	Ala				
		115					120					125							
Ala	Arg	Ala	Pro	Arg	Glu	Leu	Val	Leu	Ala	Lys	Val	Glu	Ser	Asp	Ile				
		130				135						140							
Leu	Arg	Asn	Ile	Xaa	Pro	Ala	Leu	Gln	His	Xaa	Lys	Asp	Pro	Ala	Leu				
145					150					155					160				
Lys	Leu	Cys	Leu	Val	Gln	Ser	Val	Cys	Met	Val	Ser	Arg	Ala	Ile	Cys				
				165					170					175					
Ser	Ser	Thr	Gln	Ala	Gly	Ser	Phe	His	Phe	Thr	Arg	Lys	Ala	Glu	Leu				
			180					185					190						
Val	Ala	Gln	Met	Met	Glu	Phe	Ile	Arg	Ala	Glu	Pro	Pro	Asp	Ser	Leu				
		195				200					205								
Arg	Thr	Pro	Ile	Arg	Lys	Lys	Ala	Met	Leu	Thr	Cys	Thr	Tyr	Leu	Val				
		210				215					220								
Ser	Val	Glu	Pro	Ala	Leu	Asp	Glu	Gln	Ala	Arg	Ala	Asp	Val	Ile	His				
225					230				235						240				
Gly	Cys	Leu	His	Ser	Ile	Met	Ala	Leu	Leu	Pro	Glu	Pro	Lys	Glu	Glu				
				245				250					255						
Asp	Gly	Gly	Cys	Gln	Lys	Ser	Leu	Tyr	Leu	Glu	Thr	Leu	His	Ala	Leu				
			260					265					270						
Glu	Asp	Leu	Leu	Thr	Ser	Leu	Leu	Gln	Arg	Asn	Met	Thr	Pro	Gln	Gly				
		275					280					285							
Leu	Gln	Ile	Met	Ile	Glu	His	Leu	Ser	Pro	Trp	Ile	Lys	Ser	Pro	Arg				
		290				295					300								
Gly	His	Val	Ala	Ala	Arg	Ala	Leu	Gly	Leu	Ser	Ala	Leu	Leu	Val	Arg				
305					310					315					320				
Tyr	Phe	Leu	Glu	His	Leu	Arg	Val	Ser	Gly	Ala	Gln	Val	Asp	Thr	Arg				
				325				330					335						
Phe	Pro	Ser	Glu	Pro	Arg	Ile	Leu	Cys	Asn	Gly	Pro	Gly	Ala	Leu	Pro				
			340					345				350							
Gln	Pro	Gly	Pro	Ser	His	Arg	Pro	Leu	Leu	Pro	Thr	Val	Cys	Gly	Pro				
		355					360					365							
Val	Ala	Cys	His	Pro	Pro	Gly	Gly	Arg	Gly	Leu	Cys	Leu	Leu	Pro	Ala				
		370				375													

<210> 145

<211> 802

<212> DNA

<213> Homo sapiens

<400> 145

cgcccgctcta ggtccggctc agtgcgctgt tgctcgccgt agaacacgag gctgcgcaag  
60  
cataagcaga cgtagagagt ggtcacatcc atgtcgatgg tgtgcgcgta atgaaggctc  
120  
acatcacccct ggtgaaggcc tgcaccacta gcgctcgccac catttccccg cgtcggacaa  
180  
gacatcatgc cccatatctt gacagaatgt ctgacatgag tatgccacgc cgagcagcac  
240

cagaggacga caccgatctg gcggacgccg cccgttcacg gcgcagatac ctcacccctg  
 300  
 tcatttgggt cgttatcgtc gctgtcctcg gactaggcat ttccgggtat cttgcgtggt  
 360  
 ggtcattgtg cgatcaagct gccgggggtct gtcagcgtgg tgaacccgtt atgtactggt  
 420  
 gttcgggtgt ctctctggcc attctcggac tcattatcgg ggtcttgacg cagatctggc  
 480  
 tggagaagcg ctggtggcac atgcttgcca tcgtcatccc ggctgttttc atcgtcgcgc  
 540  
 gtatcttttt ctggctcgcc gtctaagaag gggcgtcaca gattccacaa acgacacagg  
 600  
 tattgatctc cgttttatcg gctcctagca gccgtgggtca acgtatcgct atcaagcgat  
 660  
 acaggactcg tcgttcgcat cgttgtgtgt ctgctgggaa acaatcccag cgatctactc  
 720  
 ggctaccgcc agacagttca ctcacaaccc ctcacgcgcg gcgcagacac aaatcccatt  
 780  
 ctcgatagac ggcccacacc ac  
 802

<210> 146  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 146  
 Met Lys Val Tyr Ile Thr Leu Val Lys Ala Cys Thr Thr Ser Val Gly  
 1 5 10 15  
 Thr Ile Ser Pro Arg Arg Thr Arg His His Ala Pro Tyr Leu Asp Arg  
 20 25 30  
 Met Ser Asp Met Ser Met Pro Arg Arg Ala Ala Pro Glu Asp Asp Thr  
 35 40 45  
 Asp Leu Ala Asp Ala Ala Arg Ser Trp Arg Arg Tyr Leu Ile Leu Val  
 50 55 60  
 Ile Cys Gly Val Ile Val Ala Val Leu Gly Leu Gly Ile Phe Gly Tyr  
 65 70 75 80  
 Leu Ala Trp Trp Ser Leu Cys Asp Gln Ala Ala Gly Val Cys Gln Arg  
 85 90 95  
 Gly Glu Pro Val Met Tyr Trp Cys Ser Val Val Ser Leu Ala Ile Leu  
 100 105 110  
 Gly Leu Ile Ile Gly Val Leu Thr Gln Ile Trp Leu Glu Lys Arg Trp  
 115 120 125  
 Trp His Met Leu Ala Ile Val Ile Pro Ala Val Phe Ile Val Ala Gly  
 130 135 140  
 Ile Phe Phe Trp Leu Ala Val  
 145 150

<210> 147  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 147

acgcgtgaaa acggtatgac tcttctggcc ttagtagatc tgtctaaaaa acccgatgag  
 60  
 ttacacagt gggcattagt agcccgcat gttcatgaca ttcctgggtct acgaaaagtt  
 120  
 attggtcaga aagtaccttg tgttcagtg acggggtcgg aaaagggtgct tcataaaaag  
 180  
 gattactggg atctagcaac acctatgccca attgcgtggg gtacaacgga ccgaacagtt  
 240  
 attgctgatg caccagctac aatccccacc acggagtggg atatccttgc aagactacgt  
 300  
 ccaagcctag aagagggttcg caagcaacgt aatgatgtat tgctcctcaa cgaggaggat  
 360  
 ccccccta  
 368

<210> 148  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 148  
 Met Thr Leu Leu Ala Leu Val Asp Leu Ser Lys Lys Pro Asp Glu Phe  
 1 5 10 15  
 Thr Gln Trp Ala Leu Val Ala Arg Asp Val His Asp Ile Pro Gly Leu  
 20 25 30  
 Arg Lys Val Ile Gly Gln Lys Val Pro Cys Val Ala Val Thr Gly Ser  
 35 40 45  
 Glu Lys Val Leu His Lys Lys Asp Tyr Trp Asp Leu Ala Thr Pro Met  
 50 55 60  
 Pro Ile Ala Trp Gly Thr Thr Asp Arg Thr Val Ile Ala Asp Ala Arg  
 65 70 75 80  
 Arg Thr Ile Pro Thr Thr Glu Trp Asp Ile Leu Ala Arg Leu Arg Pro  
 85 90 95  
 Arg Leu Glu Glu Val Arg Lys Gln Arg Asn Asp Val Leu Leu Leu Asn  
 100 105 110  
 Glu Glu Asp Pro Pro  
 115

<210> 149  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 149  
 nngctagcat ggaccctagt cacacaggca gccatacccg aggtcaaagt gacccatttt  
 60  
 cctaatatgg ccgctcagat ccaatacttt gaagattcgt ccgtgggttat atggcacgat  
 120  
 gcgggtgatg gtagctgtga ccgaagtgcg gatgaaggca agtcgtgggc cccaattaag  
 180  
 gggcctgaac agggtcaggc gcaccttttc gtgtccatc cctacgacaa gactcaagcg  
 240  
 tatattctga cgcgcagcac tcagcattgg cgcacgtcga accgtggcga gacgtggcag  
 300

tcattctcaa cgccatcatcc gectacgacc ttgaaagcta tgcctctgga ctttcatccg  
 360  
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 <213> Homo sapiens

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 Ser Ser Val Val Ile Trp His Asp Ala Val Asp Gly Ile Val Tyr Arg  
 35 40 45  
 Ser Ala Asp Glu Gly Lys Ser Trp Ala Pro Ile Lys Gly Pro Glu Gln  
 50 55 60  
 Gly Gln Ala His Leu Phe Val Leu His Pro Tyr Asp Lys Thr Gln Ala  
 65 70 75 80  
 Tyr Ile Leu Thr Arg Ser Thr Gln His Trp Arg Thr Ser Asn Arg Gly  
 85 90 95  
 Glu Thr Trp Gln Ser Phe Ser Thr Pro His Pro Pro Thr Thr Leu Lys  
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 gcttccacgg cacggcctcg tgcaaaatcg cgggtttcgg ggccttgag caaattgcgc  
 300  
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<210> 152

<211> 149  
 <212> PRT  
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<400> 152  
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 Cys Pro Val Ser Ala Pro Pro Ser Ser Pro Pro Glu Gly Lys Thr Trp  
 50 55 60  
 Ala Leu Arg Glu Pro Cys Gly Met Phe Phe Val Ile Asn Cys Thr Ser  
 65 70 75 80  
 Ala Ser Thr Ala Arg Pro Arg Ala Lys Ser Arg Val Ser Gly Pro Trp  
 85 90 95  
 Ser Lys Leu Arg Leu Ser Ala Ala Thr Ser Gly Gly Gln Gly Glu Gly  
 100 105 110  
 Phe Ala Ala Glu Thr Ala Ala Ser Gln His Arg Ala Ile Leu Gly Cys  
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 <212> PRT  
 <213> Homo sapiens



&lt;400&gt; 154

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 Gly Pro Cys Ile Cys Val Tyr Ile Cys Gly Asp Met Tyr Met Cys Val  
 35 40 45  
 Cys Met Asn Arg Cys Lys Trp Gly Ala Leu Arg Cys Val Cys Val Cys  
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 Ser Cys Thr Arg Val  
 65

&lt;210&gt; 155

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 155

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 gtgaacatgg cggagttgat ggccgatgcc gcgaccggca cgaaaccgtc ctacctacag  
 120  
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 180  
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 240  
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 344

&lt;210&gt; 156

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 156

Met Ala Glu Leu Met Ala Asp Ala Thr Gly Thr Lys Pro Ser Tyr  
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 20 25 30  
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 35 40 45  
 Asp His Gly Arg Arg Ala Ser Ala Gln Gly Glu Leu Gly Thr Ser Gln  
 50 55 60  
 Ala Thr Pro Pro Arg Ser Met Pro Pro Pro Val Ser Ser Ala Ser Ser  
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&lt;211&gt; 6816

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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tttggacca gatgccaga agcttgactt ctcatcagct gagccagaag tgaagtcatt  
420  
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<210> 158  
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 <212> PRT  
 <213> Homo sapiens

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 85 90 95  
 His Thr Gln Pro Tyr Thr Ile Tyr Thr Asn His Leu Tyr Val Tyr Pro  
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 Lys Tyr Leu Lys Tyr Asp Ser Gln Lys Ser Phe Ala Lys Ala Arg Asn  
 115 120 125  
 Ile Ala Ile Cys Ile Glu Phe Lys Asp Ser Asp Glu Glu Asp Ser Gln  
 130 135 140  
 Pro Leu Lys Cys Ile Tyr Gly Arg Pro Gly Gly Pro Val Phe Thr Arg  
 145 150 155 160  
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 165 170 175  
 Asp Glu Ile Lys Ile Glu Leu Pro Thr Gln Leu His Glu Lys His His  
 180 185 190  
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 Ser Thr Lys Lys Arg Asp Val Val Glu Thr Gln Val Gly Tyr Ser Trp  
 210 215 220  
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 225 230 235 240  
 Pro Val Ser Ala Asn Leu Pro Ser Gly Tyr Leu Gly Tyr Gln Glu Leu  
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Lys	Pro	Leu	Leu	Lys	Ile	Ser	Thr	His	Leu	Val	Ser	Thr	Val	Tyr	Thr	
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Gln	Asp	Gln	His	Leu	His	Asn	Phe	Phe	Gln	Tyr	Cys	Gln	Lys	Thr	Glu	
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Ser	Gly	Ala	Gln	Ala	Leu	Gly	Asn	Glu	Leu	Val	Lys	Tyr	Leu	Lys	Ser	
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Leu	His	Ala	Met	Glu	Gly	His	Val	Met	Ile	Ala	Phe	Leu	Pro	Thr	Ile	
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Leu	Asn	Gln	Leu	Phe	Arg	Val	Leu	Thr	Arg	Ala	Thr	Gln	Glu	Glu	Val	
			340					345					350			
Ala	Val	Asn	Val	Thr	Arg	Val	Ile	His	Val	Val	Ala	Gln	Cys	His		
		355					360					365				
Glu	Glu	Gly	Leu	Glu	Ser	His	Leu	Arg	Ser	Tyr	Val	Lys	Tyr	Ala	Tyr	
	370					375					380					
Lys	Ala	Glu	Pro	Tyr	Val	Ala	Ser	Glu	Tyr	Lys	Thr	Val	His	Glu	Glu	
385					390					395					400	
Leu	Thr	Lys	Ser	Met	Thr	Thr	Ile	Leu	Lys	Pro	Ser	Ala	Asp	Phe	Leu	
				405				410						415		
Thr	Ser	Asn	Lys	Leu	Leu	Lys	Tyr	Ser	Trp	Phe	Phe	Phe	Asp	Val	Leu	
			420					425					430			
Ile	Lys	Ser	Met	Ala	Gln	His	Leu	Ile	Glu	Asn	Ser	Lys	Val	Lys	Leu	
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Arg	Cys	Phe	Thr	Phe	Met	Asp	Arg	Gly	Phe	Val	Phe	Lys	Gln	Ile	Asn	
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	515						520					525				
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Gln	Asp	Leu	Gln	Leu	Asp	Tyr	Ser	Leu	Thr	Asp	Glu	Phe	Cys	Arg	Asn	
				565					570					575		
His	Phe	Leu	Val	Gly	Leu	Leu	Leu	Arg	Glu	Val	Gly	Thr	Ala	Leu	Gln	
			580					585					590			
Glu	Phe	Arg	G													

690	695	700
Ser Thr Pro Asn Ile Asn Ser Val Arg Asn Ala Asp Ser Arg Gly Ser		
705	710	715
Leu Ile Ser Thr Asp Ser Gly Asn Ser Leu Pro Glu Arg Asn Ser Glu		720
	725	730
Lys Ser Asn Ser Leu Asp Lys His Gln Gln Ser Ser Thr Leu Gly Asn		735
	740	745
Ser Val Val Arg Cys Asp Lys Leu Asp Gln Ser Glu Ile Lys Ser Leu		750
	755	760
Leu Met Cys Phe Leu Tyr Ile Leu Lys Ser Met Ser Asp Asp Ala Leu		765
	770	775
Phe Thr Tyr Trp Asn Lys Ala Ser Thr Ser Glu Leu Met Asp Phe Phe		780
785	790	795
Thr Ile Ser Glu Val Cys Leu His Gln Phe Gln Tyr Met Gly Lys Arg		800
	805	810
Tyr Ile Ala Arg Thr Gly Met Met His Ala Arg Leu Gln Gln Leu Gly		815
	820	825
Ser Leu Asp Asn Ser Leu Thr Phe Asn His Ser Tyr Gly His Ser Asp		830
	835	840
Ala Asp Val Leu His Gln Ser Leu Leu Glu Ala Asn Ile Ala Thr Glu		845
	850	855
Val Cys Leu Thr Ala Leu Asp Thr Leu Ser Leu Phe Thr Leu Ala Phe		860
865	870	875
Lys Asn Gln Leu Leu Ala Asp His Gly His Asn Pro Leu Met Lys Lys		880
	885	890
Val Phe Asp Val Tyr Leu Cys Phe Leu Gln Lys His Gln Ser Glu Thr		895
	900	905
Ala Leu Lys Asn Val Phe Thr Ala Leu Arg Ser Leu Ile Tyr Lys Phe		910
	915	920
Pro Ser Thr Phe Tyr Glu Gly Arg Ala Asp Met Cys Ala Ala Leu Cys		925
	930	935
Tyr Glu Ile Leu Lys Cys Asn Ser Lys Leu Ser Ser Ile Arg Thr		940
945	950	955
Glu Ala Ser Gln Leu Leu Tyr Phe Leu Met Arg Asn Asn Phe Asp Tyr		960
	965	970
Thr Gly Lys Lys Ser Phe Val Arg Thr His Leu Gln Val Ile Ile Ser		975
	980	985
Val Ser Gln Leu Ile Ala Asp Val Val Gly Ile Gly Gly Thr Arg Phe		990
	995	1000
Gln Gln Ser Leu Ser Ile Ile Asn Asn Cys Ala Asn Ser Asp Arg Leu		1005
	1010	1015
Ile Lys His Thr Ser Phe Ser Ser Asp Val Lys Asp Leu Thr Lys Arg		1020
1025	1030	1035
Ile Arg Thr Val Leu Met Ala Thr Ala Gln Met Lys Glu His Glu Asn		1040
	1045	1050
Asp Pro Glu Met Leu Val Asp Leu Gln Tyr Ser Leu Ala Lys Ser Tyr		1055
	1060	1065
Ala Ser Thr Pro Glu Leu Arg Lys Thr Trp Leu Asp Ser Met Ala Arg		1070
	1075	1080
Ile His Val Lys Asn Gly Asp Leu Ser Glu Ala Ala Met Cys Tyr Val		1085
	1090	1095
His Val Thr Ala Leu Val Ala Glu Tyr Leu Thr Arg Lys Glu Ala Val		1100
1105	1110	1115
Gln Trp Glu Pro Pro Leu Leu Pro His Ser His Ser Ala Cys Leu Arg		1120



1125										1130				1135			
Arg	Ser	Arg	Gly	Gly	Val	Phe	Arg	Gln	Gly	Cys	Thr	Ala	Phe	Arg	Val		
			1140					1145					1150				
Ile	Thr	Pro	Asn	Ile	Asp	Glu	Glu	Ala	Ser	Met	Met	Glu	Asp	Val	Gly		
		1155					1160					1165					
Met	Gln	Asp	Val	His	Phe	Asn	Glu	Asp	Val	Leu	Met	Glu	Leu	Leu	Glu		
		1170					1175					1180					
Gln	Cys	Ala	Asp	Gly	Leu	Trp	Lys	Ala	Glu	Arg	Tyr	Glu	Leu	Ile	Ala		
1185					1190					1195					1200		
Asp	Ile	Tyr	Lys	Leu	Ile	Ile	Pro	Ile	Tyr	Glu	Lys	Arg	Arg	Asp	Phe		
			1205						1210					1215			
Glu	Arg	Leu	Ala	His	Leu	Tyr	Asp	Thr	Leu	His	Arg	Ala	Tyr	Ser	Lys		
			1220					1225					1230				
Val	Thr	Glu	Val	Met	His	Ser	Gly	Arg	Arg	Leu	Leu	Gly	Thr	Tyr	Phe		
		1235					1240					1245					
Arg	Val	Ala	Phe	Phe	Gly	Gln	Ala	Ala	Gln	Tyr	Gln	Phe	Thr	Asp	Ser		
	1250				1255						1260						
Glu	Thr	Asp	Val	Glu	Gly	Phe	Phe	Glu	Asp	Glu	Asp	Gly	Lys	Glu	Tyr		
1265					1270					1275					1280		
Ile	Tyr	Lys	Glu	Pro	Lys	Leu	Thr	Pro	Leu	Ser	Glu	Ile	Ser	Gln	Arg		
			1285					1290						1295			
Leu	Leu	Lys	Leu	Tyr	Ser	Asp	Lys	Phe	Gly	Ser	Glu	Asn	Val	Lys	Met		
			1300					1305					1310				
Ile	Gln	Asp	Ser	Gly	Lys	Val	Asn	Pro	Lys	Asp	Leu	Asp	Ser	Lys	Tyr		
	1315						1320					1325					
Ala	Tyr	Ile	Gln	Val	Thr	His	Val	Ile	Pro	Phe	Phe	Asp	Glu	Lys	Glu		
	1330					1335					1340						
Leu	Gln	Glu	Arg	Lys	Thr	Glu	Phe	Glu	Arg	Ser	His	Asn	Ile	Arg	Arg		
1345				1350						1355					1360		
Phe	Met	Phe	Glu	Met	Pro	Phe	Thr	Gln	Thr	Gly	Lys	Arg	Gln	Gly	Gly		
			1365					1370						1375			
Val	Glu	Glu	Gln	Cys	Lys	Arg	Arg	Thr	Ile	Leu	Thr	Ala	Ile	His	Cys		
			1380					1385					1390				
Phe	Pro	Tyr	Val	Lys	Lys	Arg	Ile	Pro	Val	Met	Tyr	Gln	His	His	Thr		
	1395						1400					1405					
Asp	Leu	Asn	Pro	Ile	Glu	Val	Ala	Ile	Asp	Glu	Met	Ser	Lys	Lys	Val		
	1410					1415					1420						
Ala	Glu	Leu	Arg	Gln	Leu	Cys	Ser	Ser	Ala	Glu	Val	Asp	Met	Ile	Lys		
1425				1430						1435					1440		
Leu	Gln	Leu	Lys	Leu	Gln	Gly	Ser	Val	Ser	Val	Gln	Val	Asn	Ala	Gly		
			1445					1450					1455				
Pro	Leu	Ala	Tyr	Ala	Arg	Ala	Phe	Leu	Asp	Asp	Thr	Asn	Thr	Lys	Arg		

1555  
Ser Ser Val Val  
1570

1560

1565

<210> 159  
<211> 540  
<212> DNA  
<213> Homo sapiens

<400> 159  
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60  
tccgctcatc tgcagaatgg gtgatgctgt cggctacttcg tggcatacag gaaagtgcc  
120  
agcattggta gcctcagtga gaggtggcca gtggggagtg gtggccactg tacacctggc  
180  
acagcccaga gatgcagtgt ccactctgtt gtgtgcttca accaaggggc gctctggcag  
240  
ggcttggttg ggacttccca aagggcattg aaaagttccc agtcaatgag atccatggag  
300  
acccatggga gtgggggtca gcccagcct aagaggaccc ccagccctgc cctgtgcccc  
360  
aggacacacc aggcactgtc ccttgctgcc ttcccagaca acctgtaccc tccaggccac  
420  
cagttctcgt ccatgacaaa gaaaggagcc ttctaaataa gtgcccgcga gaggtgcac  
480  
gcttccctgc cccttccggg tggacctggg ttccaagag aagctgccag tgcaacgcgt  
540

<210> 160  
<211> 110  
<212> PRT  
<213> Homo sapiens

<400> 160  
Met Val Ser Leu Ser Glu Arg Trp Pro Val Gly Ser Gly Gly His Cys  
1 5 10 15  
Thr Pro Gly Thr Ala Gln Arg Cys Met Cys His Ser Val Val Cys Phe  
20 25 30  
Asn Gln Gly Ala Leu Trp Gln Gly Leu Gly Gly Thr Ser Gln Arg Ala  
35 40 45  
Trp Lys Ser Ser Gln Ser Met Arg Ser Met Glu Thr His Gly Ser Gly  
50 55 60  
Gly Gln Pro Gln Pro Lys Arg Thr Pro Ser Pro Ala Leu Cys Pro Arg  
65 70 75 80  
Thr His Gln Ala Leu Ser Leu Val Ala Phe Pro Asp Asn Leu Tyr Pro  
85 90 95  
Pro Gly His Gln Phe Ser Ser Met Thr Lys Lys Gly Ala Phe  
100 105 110

<210> 161  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 161  
 nnacgcgtac gtcttttcggc cgaagaagga acgtgggcag gggcctcctt cgctggccgc  
 60  
 cgcgcttggc tcgcagcgac gatgaagggc gacgacagca gcaagatcac ccacaagatc  
 120  
 gcccggggcga agcgcgaggg ccgcgtatgg tggagctttg agtacttccc gccgcgcacg  
 180  
 ccgcagggca tgcagaattt gtatgaccgt atcgagcgca tgagtcagct gggccccgag  
 240  
 tttgtggaca ttacgtggaa tgccgggggc cggacgtcgg atatgacgac gcagctggtc  
 300  
 aagacggtgc atgcgtactt tgggtgctgag acgtgcatgc atctgacgtg c  
 351

<210> 162  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 162  
 Xaa Arg Val Arg Leu Ser Ala Glu Glu Gly Thr Trp Ala Gly Ala Ser  
 1 5 10 15  
 Phe Ala Gly Arg Arg Ala Trp Leu Ala Ala Thr Met Lys Gly Asp Asp  
 20 25 30  
 Ser Ser Lys Ile Thr His Lys Ile Ala Arg Ala Lys Arg Glu Gly Arg  
 35 40 45  
 Val Trp Trp Ser Phe Glu Tyr Phe Pro Pro Arg Thr Pro Gln Gly Met  
 50 55 60  
 Gln Asn Leu Tyr Asp Arg Ile Glu Arg Met Ser Gln Leu Gly Pro Glu  
 65 70 75 80  
 Phe Val Asp Ile Thr Trp Asn Ala Gly Gly Arg Thr Ser Asp Met Thr  
 85 90 95  
 Thr Gln Leu Val Lys Thr Val His Ala Tyr Phe Gly Val Glu Thr Cys  
 100 105 110  
 Met His Leu Thr Cys  
 115

<210> 163  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 163  
 gcgtgctcca tcggcacctt gcagatgggc gaattcgctg aaaacgtcgc cggtaggcgc  
 60  
 gacacctaca ccctgcgtca gccatcggc gtatgcgcag gcatcactcc gttcaacttc  
 120  
 ccggcgatga ttccactgtg gatgttcccg atggcgattg cctgcggtaa cactttcgtg  
 180  
 ctcaaaccgt ccgaacaaga ccctctgtcg acgatgctgc tggtagaact ggcgtggaa  
 240  
 gccggtgtgc cggccggcgt gctcaacgtg gtgcacggcg gcaaggatgt ggtggatgcg  
 300

ctgtgcaccc ataaagatat caaggcagtt tctttcgtcg gttcgaccgc cgttgggtacc  
360

<210> 164  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 164  
Ala Cys Ser Ile Gly Thr Leu Gln Met Gly Glu Phe Ala Glu Asn Val  
1 5 10 15  
Ala Gly Gly Val Asp Thr Tyr Thr Leu Arg Gln Pro Ile Gly Val Cys  
20 25 30  
Ala Gly Ile Thr Pro Phe Asn Phe Pro Ala Met Ile Pro Leu Trp Met  
35 40 45  
Phe Pro Met Ala Ile Ala Cys Gly Asn Thr Phe Val Leu Lys Pro Ser  
50 55 60  
Glu Gln Asp Pro Leu Ser Thr Met Leu Leu Val Glu Leu Ala Leu Glu  
65 70 75 80  
Ala Gly Val Pro Ala Gly Val Leu Asn Val Val His Gly Gly Lys Asp  
85 90 95  
Val Val Asp Ala Leu Cys Thr His Lys Asp Ile Lys Ala Val Ser Phe  
100 105 110  
Val Gly Ser Thr Ala Val Gly Thr  
115 120

<210> 165  
<211> 728  
<212> DNA  
<213> Homo sapiens

<400> 165  
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60  
tcccagcgag ggacgcccgg ggctgggggt gccggtcgag cccggggcaa cagcttcacc  
120  
aagtttgga accgcaacgt cttcatgaag gacaacagct cttcttcag cacagactcc  
180  
cgctcccgt cctcctccag gtccccgacg cgccacttcc gcagaagtga ctcccactca  
240  
gactccgaca gctcctactc agggaaatgag tgtcacctg tgggccgcag gaaccggccc  
300  
cctaagggcc gggcggtcg agggggccat atggatcggg gccgaggcag ggcgcagcgt  
360  
gggaagaggc acgatctggc gccaccaag cgcagtcgaa agaagatggc ggcgctggag  
420  
tgtgaggacc cggagcgaga gctgaagaag cagaagcggg cagcccgtt ccagcacgga  
480  
cactcccgcc gctgcgcct cgagcccctg gtgctgcaga tgagcagcct ggagagcagt  
540  
ggggctgacc ctgactggca ggagctgcag atcgtgggca cctgccctga catcaccaag  
600  
cactacctgc gcctcacctg tgccccgac cgtccaccg tgcgcctgt ggcattccct  
660

gtggcaggtt ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaaag agaagcagga  
 720  
 ctacgcgt  
 728

<210> 166  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 166  
 Ala Ser Ser Leu His Pro Pro Arg Gly Ala Gly Ser Ala Thr Arg Gly  
 1 5 10 15  
 Gly Gly Ala Pro Ser Gln Arg Gly Thr Pro Gly Ala Gly Gly Ala Gly  
 20 25 30  
 Arg Ala Arg Gly Asn Ser Phe Thr Lys Phe Gly Asn Arg Asn Val Phe  
 35 40 45  
 Met Lys Asp Asn Ser Ser Ser Ser Ser Thr Asp Ser Arg Ser Arg Ser  
 50 55 60  
 Ser Ser Arg Ser Pro Thr Arg His Phe Arg Arg Ser Asp Ser His Ser  
 65 70 75 80  
 Asp Ser Asp Ser Ser Tyr Ser Gly Asn Glu Cys His Pro Val Gly Arg  
 85 90 95  
 Arg Asn Pro Pro Pro Lys Gly Arg Gly Gly Arg Gly Ala His Met Asp  
 100 105 110  
 Arg Gly Arg Gly Arg Ala Gln Arg Gly Lys Arg His Asp Leu Ala Pro  
 115 120 125  
 Thr Lys Arg Ser Arg Lys Lys Met Ala Ala Leu Glu Cys Glu Asp Pro  
 130 135 140  
 Glu Arg Glu Leu Lys Lys Gln Lys Arg Ala Ala Arg Phe Gln His Gly  
 145 150 155 160  
 His Ser Arg Arg Leu Arg Leu Glu Pro Leu Val Leu Gln Met Ser Ser  
 165 170 175  
 Leu Glu Ser Ser Gly Ala Asp Pro Asp Trp Gln Glu Leu Gln Ile Val  
 180 185 190  
 Gly Thr Cys Pro Asp Ile Thr Lys His Tyr Leu Arg Leu Thr Cys Ala  
 195 200 205  
 Pro Asp Pro Ser Thr Val Arg Pro Val Ala Phe Pro Val Ala Gly Phe  
 210 215 220  
 Glu Lys Val Ala Val His Gly Gln Val Pro Leu Glu Arg Glu Ala Gly  
 225 230 235 240  
 Leu Arg

<210> 167  
 <211> 510  
 <212> DNA  
 <213> Homo sapiens

<400> 167  
 nnacgcgtgg aaccagaact caggcccggtg tgaggagtct ggtttggaac acacggggcc  
 60  
 gcaacacaga attgtcaggt cctgtgccgt gaccaccaac cctcgggcca tgccaggtgc  
 120

tgggtgagggg caggtggttc ccgccaggcg cctgctggcc tgaccgcact cgtccacag  
 180  
 gtcctcatgg gcgtcctccg gctgggcttc gtgtccgcct acctctcaca gccactgctc  
 240  
 gatggctttg ccatgggggc ctccgtgacc atcctgacct cgcagctcaa acacctgctg  
 300  
 ggcgtgcgga tcccgcggca ccagggggcc ggcatggtgg tcttcacatg gctgagcctg  
 360  
 ctgcgcggcg ccgggcaggc caacgtgtgc gacgtggtca ccagcacggg gtgcctggcg  
 420  
 gtgctgctag ccgcgaagga gctctcagac cgctaccgac accgcctgag ggtgccgctg  
 480  
 cccacggagc tgctggtcat cgtggtggcc  
 510

<210> 168  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 168  
 Gly Ala Gly Gly Ser Arg Gln Ala Pro Ala Gly Leu Thr Ala Leu Arg  
 1 5 10 15  
 Pro Gln Val Leu Met Gly Val Leu Arg Leu Gly Phe Val Ser Ala Tyr  
 20 25 30  
 Leu Ser Gln Pro Leu Leu Asp Gly Phe Ala Met Gly Ala Ser Val Thr  
 35 40 45  
 Ile Leu Thr Ser Gln Leu Lys His Leu Leu Gly Val Arg Ile Pro Arg  
 50 55 60  
 His Gln Gly Pro Gly Met Val Val Leu Thr Trp Leu Ser Leu Leu Arg  
 65 70 75 80  
 Gly Ala Gly Gln Ala Asn Val Cys Asp Val Val Thr Ser Thr Val Cys  
 85 90 95  
 Leu Ala Val Leu Leu Ala Ala Lys Glu Leu Ser Asp Arg Tyr Arg His  
 100 105 110  
 Arg Leu Arg Val Pro Leu Pro Thr Glu Leu Leu Val Ile Val Val Ala  
 115 120 125

<210> 169  
 <211> 537  
 <212> DNA  
 <213> Homo sapiens

<400> 169  
 gaattccacc gcatgtcgtg tctggacgta tgtaggtcgc ggtagtgtgc gaccgccggt  
 60  
 gccttaaagg agagcgggca tcggcggttc agtacgagag gggaagggtg gcggatactt  
 120  
 attgtcgggtg cggcatcgtc catccacacc gttcgatggg tcaatggact ggtcaagcgg  
 180  
 ggtcacgagg ttacactggc atcagtcacat ccggcggggc gtcaactccat tgatccccga  
 240  
 gtccgatcc acctggcccc acacggcggg aaggcaaaat acgtcgtcaa tgccggctgg  
 300

ctgcgatcag tggcggctgg ggtgcaacct gacatcgtea acgtccacta tgcgaccggt  
 360  
 tatggtctgc tcgctcgtct tgcccatatt gacgccccga cgtgctgtc ggtgtgggga  
 420  
 agtgacgttt acgattcccc ccgggcaaat cccctcatgc gtcacatggt ccgatccaac  
 480  
 ttggtctcag ctactcggat cgcacgcaca agccactgca tggcgctgt cagcgct  
 537

<210> 170  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 170  
 Cys Ala Thr Ala Gly Ala Leu Lys Glu Ser Gly His Arg Arg Cys Ser  
 1 5 10 15  
 Thr Arg Gly Glu Gly Val Arg Ile Leu Ile Val Gly Ala Ala Ser Ser  
 20 25 30  
 Ile His Thr Val Arg Trp Val Asn Gly Leu Val Lys Arg Gly His Glu  
 35 40 45  
 Val His Leu Ala Ser Val His Pro Ala Gly Arg His Ser Ile Asp Pro  
 50 55 60  
 Arg Val Arg Ile His Leu Ala Pro His Gly Gly Lys Ala Lys Tyr Val  
 65 70 75 80  
 Val Asn Ala Gly Trp Leu Arg Ser Val Ala Ala Gly Val Gln Pro Asp  
 85 90 95  
 Ile Val Asn Val His Tyr Ala Thr Gly Tyr Gly Leu Leu Ala Arg Leu  
 100 105 110  
 Ala His Ile Asp Ala Pro Thr Leu Leu Ser Val Trp Gly Ser Asp Val  
 115 120 125  
 Tyr Asp Ser Pro Arg Ala Asn Pro Leu Met Arg His Met Val Arg Ser  
 130 135 140  
 Asn Leu Val Ser Ala Thr Arg Ile Ala Ser Thr Ser His Cys Met Ala  
 145 150 155 160  
 Arg Val Thr Arg

<210> 171  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 171  
 ctagacaagc tcgcgcgggt gggcttcgac actcttggtc tacagacctt cctaactgcg  
 60  
 ggggagaagg agtcccgcgc atggacgatt cacaagggcg acaccgcccc tgaggctgct  
 120  
 ggcgtcatcc ataccgactt ccagaagggg ttcatcaagg ccaggtggt gtccttcggc  
 180  
 gaccttggtg aatttggcgg cgaaaaggag gcccgaggctg ctgggaagct gcggttgag  
 240  
 ggcaaggagt acgttatgca ggacggtgac gtagtggaat tccgatttaa cgtgtagctc  
 300

tggtttgata cttacttggc ttaaccgcat ctgagatccg tcatactctt ggcgtagcct  
 360  
 tatttggtatg aataacatgc cgtagccaaa g  
 391

<210> 172  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 172  
 Leu Asp Lys Leu Ala Arg Val Gly Phe Asp Thr Leu Gly Leu Gln Thr  
 1 5 10 15  
 Phe Leu Thr Ala Gly Glu Lys Glu Ser Arg Ala Trp Thr Ile His Lys  
 20 25 30  
 Gly Asp Thr Ala Pro Glu Ala Ala Gly Val Ile His Thr Asp Phe Gln  
 35 40 45  
 Lys Gly Phe Ile Lys Ala Gln Val Val Ser Phe Gly Asp Leu Val Glu  
 50 55 60  
 Phe Gly Gly Glu Lys Glu Ala Gln Ala Ala Gly Lys Leu Arg Leu Glu  
 65 70 75 80  
 Gly Lys Glu Tyr Val Met Gln Asp Gly Asp Val Val Glu Phe Arg Phe  
 85 90 95  
 Asn Val

<210> 173  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 173  
 ccatggagtg tcccttgtgc gagcattttg agagctatac caacacccat ccctgcaggt  
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 cccagagccg agccatttct caggagagca ggaagggagc aggccgaggg gtgctcccag  
 120  
 ccagccccgg aaccgaggt ctggggacgc agccgaccag cctctcttgt ctgggcctct  
 180  
 gtttctctt cgacacaggg aagcagggag gggccgatca gcgacttagg cctgttggt  
 240  
 gtggtggggc cccctgcgtt tctgggaagc cacggaccct gggatgtacc tgggtttcat  
 300  
 tcgcagtga  
 309

<210> 174  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 174  
 Met Glu Cys Pro Leu Cys Glu His Phe Glu Ser Tyr Thr Asn Thr His  
 .1 5 10 15  
 Pro Cys Arg Ser Gln Ser Arg Ala Ile Ser Gln Glu Ser Arg Lys Gly



	20		25		30										
Ala	Gly	Arg	Gly	Val	Leu	Pro	Ala	Ser	Pro	Gly	Thr	Arg	Gly	Leu	Gly
	35		40		45										
Thr	Gln	Pro	Thr	Ser	Pro	Pro	Cys	Leu	Gly	Leu	Cys	Phe	Leu	Phe	Asp
	50		55		60										
Thr	Gly	Lys	Gln	Gly	Gly	Ala	Asp	Gln	Arg	Leu	Arg	Pro	Val	Gly	Cys
65			70		75				80						
Gly	Gly	Val	Pro	Cys	Val	Ser	Gly	Lys	Pro	Arg	Thr	Leu	Gly	Cys	Thr
			85		90									95	
Trp	Val	Ser	Phe	Ala	Val										
	100														

&lt;210&gt; 175

&lt;211&gt; 8484

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 175

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nnactttttt tttttttttt catttatgct atggagaaac cagcatggag atgtcatggg
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agagcatgca caggccccgc cctagggagt ggtgatgtgt ttggggaggt gcttgttttc
120
aggtccatcc cacacgttgt ccagttggat cctatggcag gctggctgtg gctttctctc
180
tcctgcttct cttctctctc cagataaggg tctgcaggat cttctgctta gcaagtgggtg
240
gccaaggact ggtggatggg tggtgggaag cagcgacat gctccacagt ggaactgtct
300
gtctccacgg acttcatgta tttgttcagg atggcaaaaa cctcattgtt caagatctga
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540
tgctcagctg tgaactcgtt ggttcccaca gggatgcagt acacgaactg catggcgctc
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720
gacaggccac agcacagccg ctcttggtc aggaggtcac cctcgcgagc aatggcgatt
780
tgctgagggg tccccagccg ctcgatcaga gggaccaggt ggagcggggc atacttggct
840
tccagacgtt tcattttggc atcaagtctc tccccctctt tcacatggac tcgcggcaag
900
atgtttctga aaggagccgc gtgcagcagg tcacacactt cttctaaaga cagagctctg
960
ctcgatgagg aggcagaaga ggatggcatt gcccaattcc ctcaggctct ggaagcacgt
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ctgttttgag ctctgcgtac tcaatgatgt ccttcagctg gtggtggaag aactccagga
1080

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tccctgggga gccatactca tgtcggggca agcggcatat cttgggcatac acctctatca  
1140  
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1200  
cctccatgac cacagcgatg ccctgataac ccaggagtct gcagatagtc ttgaaagtgt  
1260  
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1320  
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Val	Glu Arg Ile Arg Lys Phe Gln Ile Leu Asn Asp Glu Ile Ile Thr				
		1345		1350	1355
Ile	Leu Asp Lys Tyr Leu Lys Ser Gly Asp Gly Glu Gly Thr Pro Val				
		1365		1370	1375
Glu	His Val Arg Cys Phe Gln Pro Pro Ile His Gln Ser Leu Ala Ser				
		1380		1385	1390
Ser					

<210> 177  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 177  
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 60  
 gcagttcgtg gcgcgcatag tttctggcat gcttcgcgca tcctggagac cgatcccgcc  
 120  
 gctgccgtga aaccgcctaa aaatgtgaag cgattgcca aagccgtgtc cgtggagcaa  
 180  
 atgcaaaagc tccttgccat acccagtctt aagactccta ccggcctgcy taatcgagcy  
 240  
 atacttgagt tcttatatgc taccggcgcy cgcgtgagcy agatgctggc aacagacctg  
 300  
 gacgatatac acctggggcga aaaacccgcg gatgaaaacy gggaatctat tgcacttccc  
 360  
 gggatatgtc gccttttttg aaagggaggt aaagagcgtt tagtcccttt gggatcc  
 417

<210> 178  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 178  
 Thr Arg Asp Val Thr Leu Pro Leu Pro Leu Gly Pro Asn Ser Ile Ala  
 1 5 10 15  
 Arg Thr Met Ala Ala Val Arg Gly Ala His Ser Phe Trp His Ala Ser  
 20 25 30  
 Arg Ile Leu Glu Thr Asp Pro Ala Ala Val Lys Pro Pro Lys Asn  
 35 40 45  
 Val Lys Arg Leu Pro Lys Ala Val Ser Val Glu Gln Met Gln Lys Leu  
 50 55 60  
 Leu Ala Ile Pro Ser Leu Lys Thr Pro Thr Gly Leu Arg Asn Arg Ala  
 65 70 75 80  
 Ile Leu Glu Phe Leu Tyr Ala Thr Gly Ala Arg Val Ser Glu Met Leu  
 85 90 95  
 Ala Thr Asp Leu Asp Asp Ile His Leu Gly Glu Lys Pro Arg Asp Glu  
 100 105 110  
 Asn Gly Glu Ser Ile Ala Leu Pro Gly Tyr Val Arg Leu Phe Gly Lys  
 115 120 125  
 Gly Gly Lys Glu Arg Leu Val Pro Leu Gly Ser  
 130 135

<210> 179  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

<400> 179  
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aggtgattgc cctggtggtg atggtggaag atccccgcatc cccaagaatc cgggaattcg  
 120  
 ccattggggc gggcagcccg aatccaaaat gtcggggcac gccagtgagg agtatggtaa  
 180  
 gggggccgga ccgatgttgg nggcagcata cggatggaag tgctgggcga gcgcctgggt  
 240  
 ttgccggcag agcaactggg gcagctcaag gcgggcgggg tgatcgagca gttggattga  
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 gcaatggcgg ccgcgaagcc cgccatttac cttgatgact gtttagcgcg cggattcttt  
 360  
 aa  
 362

<210> 180  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 180  
 Met Ala Gly Phe Ala Ala Ala Ile Ala Gln Ser Asn Cys Ser Ile Thr  
 1 5 10 15  
 Pro Pro Ala Leu Ser Cys Pro Ser Cys Ser Ala Gly Lys Pro Arg Arg  
 20 25 30  
 Ser Pro Ser Thr Ser Ile Arg Met Leu Pro Pro Thr Ser Val Pro Ala  
 35 40 45  
 Pro Tyr His Thr Pro Thr Gly Arg Ala Pro Thr Phe Trp Ile Arg Ala  
 50 55 60  
 Ala Arg Pro Asn Gly Glu Phe Pro Asp Ser Trp Gly Cys Gly Ile Phe  
 65 70 75 80  
 His His Gln Pro Thr Gly Asn His Leu Arg Leu Phe Gln Gly Leu Arg  
 85 90 95  
 Asp Val Ile Asp Arg Pro His Arg His Leu Arg Arg  
 100 105

<210> 181  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 181  
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 60  
 ccgattcact tgctcggtaca ggccaatacg gtgaattggg ccagcgtcga gttctggcaa  
 120  
 cagcaaggta tctgccgggt aatcctgtcg cgggaattgt cactggaaga aatcggcgaa  
 180  
 atccgccaac aggtgccggc catggagctg gaagtgtttg tgcacgggtc cctgtacatg  
 240  
 gcctattccg ggcgctgttt gttgtccggc tatatgaaca agcgcgatgc caaccaa  
 297

<210> 182  
 <211> 99  
 <212> PRT

<213> Homo sapiens

<400> 182

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Ala Leu Ile Met Ser Asp Pro Gly Leu Ile Met Leu Val Arg Arg His
 1             5             10             15
Phe Pro Cys Met Pro Ile His Leu Ser Val Gln Ala Asn Thr Val Asn
      20             25             30
Trp Ala Ser Val Glu Phe Trp Gln Gln Gln Gly Ile Cys Arg Val Ile
      35             40             45
Leu Ser Arg Glu Leu Ser Leu Glu Glu Ile Gly Glu Ile Arg Gln Gln
      50             55             60
Val Pro Ala Met Glu Leu Glu Val Phe Val His Gly Ala Leu Tyr Met
      65             70             75             80
Ala Tyr Ser Gly Arg Cys Leu Leu Ser Gly Tyr Met Asn Lys Arg Asp
      85             90             95
Ala Asn Gln

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<210> 183

<211> 351

<212> DNA

<213> Homo sapiens

<400> 183

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cgggacgtca ccataagcc gaccggctcg ggggatgtgg cgaacaaggt catcacccat
60
attccgttta acatcgtctc ccaggcgact catccattcc ttcgtacctt ggacgatgtc
120
aagcgcatct ctttggcgac cgacgggctc ggccaccagg tctgtctcaa gggctaccag
180
gccgagggcc acgactacgc acaccccgac tacggcgagg acgtctccca ccgtgccggc
240
gggatgaagg atctcgagaa gtcaccgag tcgggcaggc agtggaacac cgatttcggc
300
attcacgtca acctggtgga gtcctatcct gaggcgaatc acttcggcga c
351

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<210> 184

<211> 117

<212> PRT

<213> Homo sapiens

<400> 184

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Arg Asp Val Thr Met Lys Pro Thr Gly Ser Gly Asp Val Ala Asn Lys
 1             5             10             15
Val Ile Thr His Ile Pro Phe Asn Ile Val Ser Gln Ala Thr His Pro
      20             25             30
Phe Leu Arg Thr Leu Asp Asp Val Lys Arg Ile Ser Leu Ala Thr Asp
      35             40             45
Gly Leu Gly His Gln Val Leu Leu Lys Gly Tyr Gln Ala Glu Gly His
      50             55             60
Asp Tyr Ala His Pro Asp Tyr Gly Gly Asn Val Ser His Arg Ala Gly
      65             70             75             80
Gly Met Lys Asp Leu Glu Lys Leu Thr Glu Ser Gly Arg Gln Trp Asn

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85 90 95  
 Thr Asp Phe Gly Ile His Val Asn Leu Val Glu Ser Tyr Pro Glu Ala  
 100 105 110  
 Asn His Phe Gly Asp  
 115

<210> 185  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 185  
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 gctgttggtg gcattgtggt ttatgcaggc catgaaacca aagcaatgct gaacaacagt  
 120  
 gggccacggt ataagcgag caaattagaa agaagagcaa acacagatgt cctctggtgt  
 180  
 gtcattgttc tggtcataat gtgcttaact ggcgcagtag gtcattggaat ctggctgagc  
 240  
 aggtatgaaa agatgcattt tttcaatgtt cccgagcctg atggacatat catatcacca  
 300  
 ctgttggcag gattttatat gttttggacc gtgatcattt tggtacaggt cttgattcct  
 360  
 atttctctct atgtttccat cgaaattgtg aagctt  
 396

<210> 186  
 <211> 132  
 <212> PRT  
 <213> Homo sapiens

<400> 186  
 Arg Val Gly Leu Ser Lys Glu Asn Leu Leu Leu Arg Gly Cys Thr Ile  
 1 5 10 15  
 Arg Asn Thr Glu Ala Val Val Gly Ile Val Val Tyr Ala Gly His Glu  
 20 25 30  
 Thr Lys Ala Met Leu Asn Asn Ser Gly Pro Arg Tyr Lys Arg Ser Lys  
 35 40 45  
 Leu Glu Arg Arg Ala Asn Thr Asp Val Leu Trp Cys Val Met Leu Leu  
 50 55 60  
 Val Ile Met Cys Leu Thr Gly Ala Val Gly His Gly Ile Trp Leu Ser  
 65 70 75 80  
 Arg Tyr Glu Lys Met His Phe Phe Asn Val Pro Glu Pro Asp Gly His  
 85 90 95  
 Ile Ile Ser Pro Leu Leu Ala Gly Phe Tyr Met Phe Trp Thr Val Ile  
 100 105 110  
 Ile Leu Leu Gln Val Leu Ile Pro Ile Ser Leu Tyr Val Ser Ile Glu  
 115 120 125  
 Ile Val Lys Leu  
 130

<210> 187  
 <211> 423

<212> DNA  
 <213> Homo sapiens

<400> 187  
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 gaacctcgac gagttcagcg gatcctggac cagcgcgagt gggctggcgt cttcgttgtc  
 120  
 gatgagcatc gtcgtttgct tggcacggtc ggcgatcaag aggtcatcga ggctgctcgc  
 180  
 cgcggagatc gcagtattgc tgacgcggtg gaaactaacg gcaccctcac ggcgcggacc  
 240  
 gacactccgt tgtccgagct ctcgctccg accagcaacg ccagggtgcc gttggccgtt  
 300  
 gtcgacgagg acttccacct catgggtgtc atctctcggg tgaccctgct cgacgcgatg  
 360  
 tcacgagctc gcgacgaggc aggagagggg tctgtcatgt ccttgagaa caccgaaaag  
 420  
 ctt  
 423

<210> 188  
 <211> 141  
 <212> PRT  
 <213> Homo sapiens

<400> 188  
 Arg Val Leu Thr Ala Ser Ala Val Met Arg Pro Thr Glu Ala Val Val  
 1 5 10 15  
 Ser Arg Ser Ala Glu Pro Arg Arg Val Gln Arg Ile Leu Asp Gln Arg  
 20 25 30  
 Glu Trp Ala Gly Val Phe Val Val Asp Glu His Arg Arg Leu Leu Gly  
 35 40 45  
 Thr Val Gly Asp Gln Glu Val Ile Glu Ala Ala Arg Arg Gly Asp Arg  
 50 55 60  
 Ser Ile Ala Asp Ala Val Glu Thr Asn Gly Ile Leu Thr Ala Arg Thr  
 65 70 75 80  
 Asp Thr Pro Leu Ser Glu Leu Phe Ala Pro Thr Ser Asn Ala Arg Val  
 85 90 95  
 Pro Leu Ala Val Val Asp Glu Asp Phe His Leu Met Gly Val Ile Ser  
 100 105 110  
 Arg Val Thr Leu Leu Asp Ala Met Ser Arg Ala Arg Asp Glu Ala Gly  
 115 120 125  
 Glu Gly Ser Val Met Ser Leu Glu Asn Thr Gly Lys Leu  
 130 135 140

<210> 189  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 189  
 ngatgggttta ccaacatatg cagggttcga gcggcaatag ctccctcgggg gctggcagtg  
 60

aaatgtttga agatgccggc gtttcgggcc tcaacttggt tcgatgccgt ggttccaccg  
 120  
 atttcgccga tgcggctcat cgcacgggta agaagtttcg tccagataac ccaggacaga  
 180  
 gcaaggtata tcaggctcag aaccaggaaa agcaggggctt taccccagtg ccccatatag  
 240  
 accgcgctag ctacggcaaa aggcgcgccc agtgggggtcc aggacagcac tttcatggct  
 300  
 gaaggagcg catcccnagc ttgccttagc cccagagcta acccagcgac cagtggacca  
 360  
 gcgcccata tcagtaggaa ccctacgata atcagccctt gttttacccc tggaatggag  
 420  
 ctgatttcn  
 429

<210> 190  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 190  
 Met Met Gly Ala Gly Pro Leu Val Ala Gly Leu Ala Leu Gly Leu Gly  
 1 5 10 15  
 Glu Ala Xaa Asp Ala Leu Pro Ser Ala Met Lys Val Leu Ser Trp Thr  
 20 25 30  
 Pro Leu Gly Ala Pro Phe Ala Val Ala Ser Ala Val Tyr Met Gly His  
 35 40 45  
 Trp Gly Lys Ala Leu Leu Phe Leu Val Leu Ser Leu Ile Tyr Leu Ala  
 50 55 60  
 Leu Ser Trp Val Ile Trp Thr Lys Leu Leu Asn Arg Ala Met Ser Arg  
 65 70 75 80  
 Ile Gly Glu Ile Gly Gly Thr Thr Ala Ser Lys Gln Val Glu Ala Gly  
 85 90 95  
 Asn Ala Gly Ile Phe Lys His Phe Thr Ala Ser Pro Arg Gly Ala Ile  
 100 105 110  
 Ala Ala Arg Thr Val His Met Leu Val Asn His  
 115 120

<210> 191  
 <211> 4845  
 <212> DNA  
 <213> Homo sapiens

<400> 191  
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 cctccggctt ctgcctccgg ccaggagttc tggcccgac aatcggcggc cgatattctg  
 120  
 tcggggggcg cttcccgag acggtatctt ctgtatgacg tcaaccccc ggaaggcttc  
 180  
 aacctgcgca gggatgtcta tatccgaatc gcctctctcc tgaagactct gctgaagacg  
 240  
 gaggagtggg tgcttgcctt gcctccatgg ggccgcctct atcactggca gagtctgac  
 300

atccaccagg tccggattcc ctggctctgag ttttttgatc ttccaagtct caataaaaaac  
360  
atccccgtca tcgagtatga gcagttcatc gcagaatctg gtggggccctt tattgaccag  
420  
gtttacgtcc tgcaaagtta cgcagagggg tggaaagaag ggacctggga agagaagggtg  
480  
gacgagcggc cgtgtattga tcagctcctg tactcccagg acaagcacga gtactacaga  
540  
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600  
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660  
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720  
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900  
gatttcacct ggggtcacag acaggatgta cccagtctgg aaggggccgt gaggaagatc  
960  
cgcagcctca tgaagaccca ccggtgggac aagggtgttg tggccacaga tgccgtcaga  
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1080  
gaggagctgg agctctacaa ggacggaggc gttgcgatta ttgaccagtg gatctgcgca  
1140  
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1200  
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1320  
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1380  
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1440  
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1680  
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1740  
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1800  
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1860  
agttaaattg aaaatgaaag tagagggaat gatcttccc gtgggttagca ctgtgcacac  
1920



gcgtgcgtct ctgtgggtta gtctgtctct ctctgccc aggaatgctg agcgcctga  
1980  
gccggtgcct cttcacacat ctgctatttc ctgtggtgtt ctgggcatgg tgtataagac  
2040  
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2100  
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2160  
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2220  
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2280  
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2340  
cctgctctgg caggccctg tgtgtgggtt ggtgaggttc tccccaccag tgctgcaccc  
2400  
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2460  
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2520  
gccgctggag agccagagac cagctgcgca ggagccggag gaacgggcag gccgctgacc  
2580  
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2880  
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3120  
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3180  
agacgacgta caacagggtt tgcggagacc aagagaaggc gtgtgagcaa cccaccact  
3240  
ggaagatcac ctactgagga ggatcctcca gggccgctcc ccggaccga caggcgcggg  
3300  
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3360  
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3420  
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3480  
gcggttgttt tcaggcagcg tctgtgaacc cacagctcgg ttgccagcag tgcgcgcgtg  
3540

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 3600  
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 3660  
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 3780  
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 3840  
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 4020  
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 4080  
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 4140  
 ttcgctattg agaactagaa atgaggaagg acagttacgc taactccaaa aggtctgtct  
 4200  
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 4260  
 tttgtgccac caccacgagg ggcactctga aagagggcaa cgctagacac agaatccgtg  
 4320  
 gaaggtgcag cagtgcctca ggggtcctca gggtcaggga gccccctca ccctcttgge  
 4380  
 ccgttaccct ttgtgacttt ccaccatggt gtcgtgtgac cctcagtcag gttggtgggg  
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 4560  
 gctagtctag gacatcacct tctgtgtct tctcaagctt ttaaaattga ccctgaacgt  
 4620 cctatggtg tactcaaagc tgtgcagggt aaatgatgac atatttatc 4680  
 tttttccatt tgttctagaa acagtgcctt tttcatcagt tgcattttcc aggtctgagag  
 4740  
 ctgtataaaa cattttggac tgtgaccatg taccttcctt ttaagaaaa ataaactgct  
 4800  
 ttatggaagt tggtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4845

<210> 192  
 <211> 428  
 <212> PRT  
 <213> Homo sapiens

<400> 192  
 Pro Pro Gly Ala Met Ala Thr Leu Ser Phe Val Phe Leu Leu Leu Gly  
 1 5 10 15  
 Ala Val Ser Trp Pro Pro Ala Ser Ala Ser Gly Gln Glu Phe Trp Pro  
 20 25 30  
 Gly Gln Ser Ala Ala Asp Ile Leu Ser Gly Ala Ala Ser Arg Arg Arg

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<210> 193
<211> 350
<212> DNA
<213> Homo sapiens
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<400> 193  
 gccggcgagc tggactgcgc catcatggcc gagcccttcc ccgacaccgg cctggccacg  
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 120  
 cgtgccagca tcagccccga ggaggtcaag ggcgagacca tgttgatggt gggcacgggc  
 180  
 ccctggtttc cccggggccg cgggtgggggt ttggcccgga tttggcgcgt ttctccagcg  
 240  
 ccgttaaggg catacgccgc agtttcgagg gctcgtcgtt ggagaccatc aagcacatcg  
 300  
 tggcttcggg catggcgtga cggtggtgcc gcagctgtcc gtgccgcgcg  
 350

<210> 194  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 194  
 Ala Gly Glu Leu Asp Cys Ala Ile Met Ala Glu Pro Phe Pro Asp Thr  
 1 5 10 15  
 Gly Leu Ala Thr Ala Gln Leu Tyr Asp Glu Pro Phe Val Val Ala Leu  
 20 25 30  
 Arg Ala Ser His Pro Leu Ala Asp Arg Ala Ser Ile Ser Pro Glu Glu  
 35 40 45  
 Val Lys Gly Glu Thr Met Leu Met Leu Gly Thr Gly Pro Trp Phe Pro  
 50 55 60  
 Arg Ala Arg Gly Gly Gly Leu Ala Arg Ile Trp Arg Val Ser Pro Ala  
 65 70 75 80  
 Pro Leu Arg Ala Tyr Ala Ala Val Ser Arg Ala Arg Arg Trp Arg Pro  
 85 90 95  
 Ser Ser Thr Ser Trp Leu Arg Ala Trp Arg Asp Gly Gly Ala Ala Ala  
 100 105 110  
 Val Arg Ala Ala  
 115

<210> 195  
 <211> 495  
 <212> DNA  
 <213> Homo sapiens

<400> 195  
 acgcgtgaac gcgacggctt ggcgatcgga ggcgtcggcc ccgctcgttga gtgggcccgtt  
 60  
 gaaatggttc gcttcgacga aagcgagact ctcgaccgcc ttgcatcggg cgtccttgaa  
 120  
 ccagaacttg gcgacgattt ggccgccgtc ctgctcgatt ctcatcgggt tgctgtcatc  
 180  
 agcgagggat cgaactggct tgccctcgcta cccgtgatcg taggtcgcaa cacggaacag  
 240  
 ttctgcagca taccagacct tgcccgcgac cggatcgaca aactgcacca gttgagccat  
 300

cgcgaaatag cacgaaatcg cgagctcctg cgtgcccgcg ctgcgtcggg gcagggtcgg  
 360  
 cactgccacg gcgacgcaca cctcggcaac atcgtcatga ttgacggcaa gccggtcctg  
 420  
 ttcgacgcga tcgaatttga tcctgatatc gcgacaacgg atgtgctgta cgatttcgcg  
 480  
 ttccctctga tggat  
 495

<210> 196  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

<400> 196  
 Thr Arg Glu Arg Asp Gly Leu Ala Ile Gly Gly Val Gly Pro Val Val  
 1 5 10 15  
 Glu Trp Ala Val Glu Met Val Arg Phe Asp Glu Ser Glu Thr Leu Asp  
 20 25 30  
 Arg Leu Ala Ser Gly Val Leu Glu Pro Glu Leu Gly Asp Leu Ala  
 35 40 45  
 Ala Val Leu Leu Asp Ser His Arg Val Ala Val Ile Ser Glu Gly Ser  
 50 55 60  
 Asn Trp Leu Ala Ser Leu Pro Val Ile Val Gly Arg Asn Thr Glu Gln  
 65 70 75 80  
 Phe Arg Ser Ile Pro Asp Leu Ala Arg Asp Arg Ile Asp Lys Leu His  
 85 90 95  
 Gln Leu Ser His Arg Glu Ile Ala Arg Asn Arg Glu Leu Leu Arg Ala  
 100 105 110  
 Arg Ala Ala Ser Gly Gln Val Arg His Cys His Gly Asp Ala His Leu  
 115 120 125  
 Gly Asn Ile Val Met Ile Asp Gly Lys Pro Val Leu Phe Asp Ala Ile  
 130 135 140  
 Glu Phe Asp Pro Asp Ile Ala Thr Thr Asp Val Leu Tyr Asp Phe Ala  
 145 150 155 160  
 Phe Pro Leu Met Asp  
 165

<210> 197  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 197  
 caagcaatgc ttgacgcagt tgttgaatac ttaccagcac cgactgatat tccagcaatc  
 60  
 aaaggtatca atccagatga aactgaaggt gaacgtcacg caagcgatga tgagccattc  
 120  
 tcttcattag cattcaaaat tgcaactgac ccattcgtag gtaacttaac cttcttcctg  
 180  
 gtgtactcag gtgtaattaa ctctggatgat acagtattaa actctgtacg tcaaaaacgt  
 240  
 gaacgttttg gtcgtatcgt acagatgcac gctaataaac gtgaagaaat taaagaagtt  
 300

cgtgcgggcg atatcgctgc agcaatcggc ttaaaagatg taactacggg tgaaccatta  
 360  
 tgtgctgtcg atgcaccaat cattcttgag cgtatggaat tc  
 402

<210> 198  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 198  
 Gln Ala Met Leu Asp Ala Val Val Glu Tyr Leu Pro Ala Pro Thr Asp  
 1 5 10 15  
 Ile Pro Ala Ile Lys Gly Ile Asn Pro Asp Glu Thr Glu Gly Glu Arg  
 20 25 30  
 His Ala Ser Asp Asp Glu Pro Phe Ser Ser Leu Ala Phe Lys Ile Ala  
 35 40 45  
 Thr Asp Pro Phe Val Gly Asn Leu Thr Phe Phe Arg Val Tyr Ser Gly  
 50 55 60  
 Val Ile Asn Ser Gly Asp Thr Val Leu Asn Ser Val Arg Gln Lys Arg  
 65 70 75 80  
 Glu Arg Phe Gly Arg Ile Val Gln Met His Ala Asn Lys Arg Glu Glu  
 85 90 95  
 Ile Lys Glu Val Arg Ala Gly Asp Ile Ala Ala Ala Ile Gly Leu Lys  
 100 105 110  
 Asp Val Thr Thr Gly Glu Pro Leu Cys Ala Val Asp Ala Pro Ile Ile  
 115 120 125  
 Leu Glu Arg Met Glu Phe  
 130

<210> 199  
 <211> 507  
 <212> DNA  
 <213> Homo sapiens

<400> 199  
 acgcgtgaag tcgtgcatag atcgggtgtga catagagaag cctccgaccc aagctgcgta  
 60  
 tatcgcacaa agaccaagcg accctggacg ttctagacag aactctgcta cgaggcctga  
 120  
 caatagtga atccccgaga acccagctat ggaagggttt ccagatgctc gaaggcctgt  
 180  
 cataccagag gttagggttaa actgtatgga gactttcgag gtgaaagtgt actcgccggt  
 240  
 aaagcctgct cctaaagagg atttagatct gatagatcta tctcagatt caacctcggg  
 300  
 gectgaaaaa cactctatac tctcaacctc cgacagcgac tctcttgat ttgagcctct  
 360  
 tccctctctc agaatagtcg agagtgcga agaagaggag acgatgaacc aaggcgatga  
 420  
 cggccctcc ggtaaaaatg ctgcctcttc tccctccatc cccagccatc cctccgtctc  
 480  
 cagcctgagc acagctccgc ttgtaca  
 507

<210> 200  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 200  
 Met Glu Gly Glu Glu Ala Ala Phe Leu Pro Glu Gly Pro Ser Ser Pro  
 1 5 10 15  
 Trp Phe Ile Val Ser Ser Ser Ser Ser Leu Ser Thr Ile Leu Arg Glu  
 20 25 30  
 Gly Arg Gly Ser Asn Thr Arg Glu Ser Leu Ser Glu Val Glu Ser Ile  
 35 40 45  
 Glu Cys Phe Ser Gly Pro Glu Val Glu Ser Glu Asp Arg Ser Ile Arg  
 50 55 60  
 Ser Lys Ser Ser Leu Gly Ala Gly Phe Thr Gly Glu Ser Thr Phe Thr  
 65 70 75 80  
 Ser Lys Val Ser Ile Gln Phe Asn Leu Thr Ser Gly Met Thr Gly Leu  
 85 90 95  
 Arg Ala Ser Gly Asn Pro Ser Ile Ala Gly Phe Ser Gly Ile Ser Leu  
 100 105 110  
 Leu Ser Gly Leu Val Ala Glu Phe Cys Leu Glu Arg Pro Gly Ser Leu  
 115 120 125  
 Gly Leu Cys Ala Ile Tyr Ala Ala Trp Val Gly Gly Phe Ser Met Ser  
 130 135 140  
 His Arg Ser Met His Asp Phe Thr Arg  
 145 150

<210> 201  
 <211> 527  
 <212> DNA  
 <213> Homo sapiens

<400> 201  
 gatgtggcta ttatccctgt ttcccaggtg agaaacaggg tcagtgatag agctgggatg  
 60  
 tgtgcctgca ggctcaccag ccagtcacct cctcaccaag gatgatgttc tccgtggtga  
 120  
 gctggctcctt ggtctcctgg aactcgtggc gcacctgggc cagctgcgcc tcgaaggcat  
 180  
 cctttctccat ctctttggct agctgcaagt tctggagctg ctctgtgagg tctgtgatct  
 240  
 catccacctg ctggttgagc gtgcgcttga ggaaggccac aatctccttc ttgttattgg  
 300  
 ccagctgctc aaactcctgg cggaacatct tctcctgcac agccagctca tcccacttcc  
 360  
 gctggtagccg ggctagccgg tcctccaggt ctcgatctg gatgtggtag aactccttca  
 420  
 tctccttggc cagaggcggc tccacggcca ccaccggctc cttcttgcce cctttcttct  
 480  
 tgacttcaag ctcttgcct gccttgctca cactcttttt gggaggc  
 527

<210> 202

<211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 202  
 Gly Arg Pro Gln Ser Pro Ser Cys Tyr Trp Pro Ala Ala Gln Thr Pro  
 1 5 10 15  
 Gly Gly Thr Ser Ser Pro Ala Gln Pro Ala His Pro Thr Ser Ala Gly  
 20 25 30  
 Thr Gly Leu Ala Gly Pro Pro Gly Leu Gly Ser Gly Cys Gly Arg Thr  
 35 40 45  
 Pro Ser Ser Pro Trp Pro Glu Ala Ala Pro Arg Pro Pro Pro Ala Pro  
 50 55 60  
 Ser Cys Pro Leu Ser Ser  
 65 70

<210> 203  
 <211> 304  
 <212> DNA  
 <213> Homo sapiens

<400> 203  
 ngtgcaccgg tggtcatgga caacgcgcgc tacgtggtct acacctcggg atccaccggc  
 60  
 cgacccaagg gagttgtcgt caccacacac ggactcgaca gcttcgcact cgaccagcag  
 120  
 cgtcgattcc acgcagatca cactctcga accctgcact tcgccacccc cagcttcgac  
 180  
 ggagccgtct tcgagtacct gcaggcattc ggtgtcggag ccaccatggt gatcgtcccg  
 240  
 accgacatct acggcggcgc cgaactggca agtctcatcc gccgcgaaca cgtcactcac  
 300  
 gcgt  
 304

<210> 204  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 204  
 Xaa Ala Pro Val Val Met Asp Asn Ala Ala Tyr Val Val Tyr Thr Ser  
 1 5 10 15  
 Gly Ser Thr Gly Arg Pro Lys Gly Val Val Val Thr His Thr Gly Leu  
 20 25 30  
 Asp Ser Phe Ala Leu Asp Gln Gln Arg Arg Phe His Ala Asp His His  
 35 40 45  
 Ser Arg Thr Leu His Phe Ala Thr Pro Ser Phe Asp Gly Ala Val Phe  
 50 55 60  
 Glu Tyr Leu Gln Ala Phe Gly Val Gly Ala Thr Met Val Ile Val Pro  
 65 70 75 80  
 Thr Asp Ile Tyr Gly Gly Ala Glu Leu Ala Ser Leu Ile Arg Arg Glu  
 85 90 95  
 His Val Thr His Ala



100

<210> 205  
 <211> 356  
 <212> DNA  
 <213> Homo sapiens

<400> 205  
 nngaattcag caatgataac tggctcaatt gaaggtaaga caacaattga gggaattaat  
 60  
 gcacaattaa atacagtgtt aactttattt tcaccacaat caaaagataa agatttaatc  
 120  
 atgccagatc aacaagaaga aatagatatt ctgattgcaa ccgactgtat ttcagaagga  
 180  
 cagaacttac aagattgtga ttacttaata aactatgaca ttcattggaa tccagttcgt  
 240  
 atcattcaaa gatttggacg gattgatcga attggttcga agaataaatg tgtacaatta  
 300  
 gttaactttt ggccagatat tacattagat gaatatattg atctaaaggg acgcgt  
 356

<210> 206  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 206  
 Xaa Asn Ser Ala Met Ile Thr Gly Ser Ile Glu Gly Lys Thr Thr Ile  
 1 5 10 15  
 Glu Gly Ile Asn Ala Gln Leu Asn Thr Val Leu Thr Leu Phe Ser Pro  
 20 25 30  
 Gln Ser Lys Asp Lys Asp Leu Ile Met Pro Asp Gln Gln Glu Glu Ile  
 35 40 45  
 Asp Ile Leu Ile Ala Thr Asp Cys Ile Ser Glu Gly Gln Asn Leu Gln  
 50 55 60  
 Asp Cys Asp Tyr Leu Ile Asn Tyr Asp Ile His Trp Asn Pro Val Arg  
 65 70 75 80  
 Ile Ile Gln Arg Phe Gly Arg Ile Asp Arg Ile Gly Ser Lys Asn Lys  
 85 90 95  
 Cys Val Gln Leu Val Asn Phe Trp Pro Asp Ile Thr Leu Asp Glu Tyr  
 100 105 110  
 Ile Asp Leu Lys Gly Arg  
 115

<210> 207  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 207  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 catggtgtgt gcaacgtgtng cactgtgtgt ggatgcatgg taatgtgcac gtgtgcactg  
 120

tgtgtggtgt gtatgcatgg tgtgtgcacg tgtgactgt gtgtgtgtgt atgcatgtgt  
 180  
 gtgcacatgt gactgtgtg gtgtgtatgc atggtgtgtg cactgtgca ctgtgtatgc  
 240  
 atgngtgtgt gcatgtgtgc actgtgtatg catagtgtgc acgtgtgcac tgtgtggtgt  
 300  
 gtatgcatgg taatgtgcac gtgt  
 324

<210> 208  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 208  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met His Gly Val Cys Thr Cys Xaa Thr Val Cys Gly Cys  
 20 25 30  
 Met Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val  
 35 40 45  
 Cys Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Met Cys  
 50 55 60  
 Thr Val Trp Cys Val Cys Met Val Cys Ala Arg Val His Cys Val Cys  
 65 70 75 80  
 Met Xaa Val Cys Met Cys Ala Leu Cys Met His Ser Val His Val Cys  
 85 90 95  
 Thr Val Trp Cys Val Cys Met Val Met Cys Thr Cys  
 100 105

<210> 209  
 <211> 168  
 <212> DNA  
 <213> Homo sapiens

<400> 209  
 nnctccagag gttatgaggt tggaagcccg gtttttttca ggtgcagaaa aggctaccat  
 60  
 attcaaggtt ccacgactcg cacctgcctt gccaatata catggagtgg gatacagacc  
 120  
 gaatgtatac ctcatgcctg cagacagcca gaaaccccg cacacgcg  
 168

<210> 210  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 210  
 Xaa Ser Arg Gly Tyr Glu Val Gly Ser Pro Val Phe Phe Arg Cys Arg  
 1 5 10 15  
 Lys Gly Tyr His Ile Gln Gly Ser Thr Arg Thr Cys Leu Ala Asn  
 20 25 30  
 Leu Thr Trp Ser Gly Ile Gln Thr Glu Cys Ile Pro His Ala Cys Arg

35 40 45  
Gln Pro Glu Thr Pro Ala His Ala  
50 55

<210> 211  
<211> 354  
<212> DNA  
<213> Homo sapiens

<400> 211  
tacatgggct ttgacacagt ggtggctgaa gctgcactaa ggggtgttgg aggcaatgtc  
60  
cagctggcag ctcagaccct tgcacacccat ggaggaagcc tcccaccoga cctgcagttc  
120  
tcaggagagg actcctcccc cacaccgtcc acatccccc ctgactctgc agggacctct  
180  
agtgcctcga cagatgaaga catggagacg gaggtgtgca acgaaatcct ggaggacatt  
240  
ccggagcacg aggaggacta cctggactcc acgctggagg atgaagaagt cattattgct  
300  
gaatacttgt cctgcgttga aagtataagt tctgccngca aagaacaact gatc  
354

<210> 212  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 212  
Tyr Met Gly Phe Asp Thr Val Val Ala Glu Ala Ala Leu Arg Val Phe  
1 5 10 15  
Gly Gly Asn Val Gln Leu Ala Ala Gln Thr Leu Ala His His Gly Gly  
20 25 30  
Ser Leu Pro Pro Asp Leu Gln Phe Ser Gly Glu Asp Ser Ser Pro Thr  
35 40 45  
Pro Ser Thr Ser Pro Ser Asp Ser Ala Gly Thr Ser Ser Ala Ser Thr  
50 55 60  
Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu Ile Leu Glu Asp Ile  
65 70 75 80  
Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr Leu Glu Asp Glu Glu  
85 90 95  
Val Ile Ile Ala Glu Tyr Leu Ser Cys Val Glu Ser Ile Ser Ser Ala  
100 105 110  
Xaa Lys Glu Gln Leu Ile  
115

<210> 213  
<211> 669  
<212> DNA  
<213> Homo sapiens

<400> 213  
attgcccaat ctcagagtgt ccaggaaagc ctggagagcc tggtgcagtc tattggggaa  
60

gttgaacaaa acctggaagg gaaacaggtg tcatcactct catcaggagt catccaggaa  
 120  
 gccttagcca caaatatgaa attgaagcag gacattgctc ggcaaaagag cagcttggag  
 180  
 gccaccogtg agatgggtgac ccgattcatg gagacagcag acagtactac agcagcagtg  
 240  
 ctgcagggca aactggcaga ggtgagccag cggttcgaac agctctgtct acagcagcaa  
 300  
 gaaaaggaga gtcctctaaa gaagcttcta cccagggcag agatgtttga acacctctct  
 360  
 ggtaagctgc agcagttcat ggaaaacaaa agtcggatgc tggcctctgg aaatcagcca  
 420  
 gatcaagata ttacacattt ctccaacag atccaggagc tcaatttga aatggaagac  
 480  
 caacaggaga acctagatac tcttgagcac ctggctactg aactgagctc ttgtggcttt  
 540  
 gcgctggact tgtgccagca tcaggacagg gtacagaatc taagaaaaga cttcacagag  
 600  
 ctacagaaga cagttaaaga gagagagaaa gatgcatcat cttgccagga acagttggat  
 660  
 gaattccgg  
 669

&lt;210&gt; 214

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 214

Ile	Ala	Gln	Ser	Gln	Ser	Val	Gln	Glu	Ser	Leu	Glu	Ser	Leu	Leu	Gln
1			5					10					15		
Ser	Ile	Gly	Glu	Val	Glu	Gln	Asn	Leu	Glu	Gly	Lys	Gln	Val	Ser	Ser
			20				25						30		
Leu	Ser	Ser	Gly	Val	Ile	Gln	Glu	Ala	Leu	Ala	Thr	Asn	Met	Lys	Leu
			35				40					45			
Lys	Gln	Asp	Ile	Ala	Arg	Gln	Lys	Ser	Ser	Leu	Glu	Ala	Thr	Arg	Glu
			50				55				60				
Met	Val	Thr	Arg	Phe	Met	Glu	Thr	Ala	Asp	Ser	Thr	Thr	Ala	Ala	Val
					70				75					80	
Leu	Gln	Gly	Lys	Leu	Ala	Glu	Val	Ser	Gln	Arg	Phe	Glu	Gln	Leu	Cys
				85				90						95	
Leu	Gln	Gln	Gln	Glu	Lys	Glu	Ser	Ser	Leu	Lys	Lys	Leu	Leu	Pro	Gln
				100				105						110	
Ala	Glu	Met	Phe	Glu	His	Leu	Ser	Gly	Lys	Leu	Gln	Gln	Phe	Met	Glu
				115				120					125		
Asn	Lys	Ser	Arg	Met	Leu	Ala	Ser	Gly	Asn	Gln	Pro	Asp	Gln	Asp	Ile
				130			135				140				
Thr	His	Phe	Phe	Gln	Gln	Ile	Gln	Glu	Leu	Asn	Leu	Glu	Met	Glu	Asp
				145			150			155				160	
Gln	Gln	Glu	Asn	Leu	Asp	Thr	Leu	Glu	His	Leu	Val	Thr	Glu	Leu	Ser
				165				170						175	
Ser	Cys	Gly	Phe	Ala	Leu	Asp	Leu	Cys	Gln	His	Gln	Asp	Arg	Val	Gln
				180				185						190	
Asn	Leu	Arg	Lys	Asp	Phe	Thr	Glu	Leu	Gln	Lys	Thr	Val	Lys	Glu	Arg

195                      200                      205  
 Glu Lys Asp Ala Ser Ser Cys Gln Glu Gln Leu Asp Glu Phe Arg  
 210                      215                      220

<210> 215  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

<400> 215  
 aaatttcgta cccgctccgg cacagtacga gcccttgacg atgtgagcct ggctattaag  
 60  
 agagggttcca tctcagccgt tctcgggcac tccggagccg gcaaateccac cctgggttcgc  
 120  
 ctcatcaacg gattagagac tcccacgcgt ggccgcgtct tggtagacgg caccgacgtc  
 180  
 tgcgagctct cggacaaagc gatgcgcccg ctacgcgcag acatcgggat gatcttccaa  
 240  
 cagttcaacc tattcggctc aaggaccatc tacgacaacg ttgcctatcc actcaagctg  
 300  
 gctcattgga agaaagcaga cgagaagaag cgcgtcaccg aattgctgag ctctcgtcggg  
 360  
 ttgacgagca aagcctggga ccatccagac cagctctcgg gcggacagaa acagcggggt  
 420  
 ggtattgccc gagcgctagc aactaaacca tcgattttgt tggctgacga gtccacctcg  
 480  
 gcgctggatc cagaaacgac agctgatgtc ctatccctgc tcaagcgggt caatgcggaa  
 540  
 ctaggggtga cggtcgctgt catcaccac gagatggagg tcgtccgctc gattgcccag  
 600  
 caggtctcgg tactagcagc tggccatctc gtcgagtctg gaagcgcgcg ccaggtcttc  
 660  
 gctcatccac agtcagagac caccacgcgt ttcttgccga cgattatcgg ccagcaccgc  
 720  
 agtggggagg aacaggcacg gttgcagtcg gaaaaccag atgcacgact cgtcgacgtc  
 780  
 agttcgggtg ccagtcactc gttcggtgac gcgt  
 814

<210> 216  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 216  
 Lys Phe Arg Thr Arg Ser Gly Thr Val Arg Ala Leu Asp Asp Val Ser  
 1                      5                      10                      15  
 Leu Ala Ile Lys Arg Gly Ser Ile Ser Ala Val Ile Gly His Ser Gly  
 20                      25                      30  
 Ala Gly Lys Ser Thr Leu Val Arg Leu Ile Asn Gly Leu Glu Thr Pro  
 35                      40                      45  
 Thr Arg Gly Arg Val Leu Val Asp Gly Thr Asp Val Ser Gln Leu Ser  
 50                      55                      60  
 Asp Lys Ala Met Arg Pro Leu Arg Ala Asp Ile Gly Met Ile Phe Gln

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65          70          75          80
Gln Phe Asn Leu Phe Gly Ser Arg Thr Ile Tyr Asp Asn Val Ala Tyr
      85          90          95
Pro Leu Lys Leu Ala His Trp Lys Lys Ala Asp Glu Lys Lys Arg Val
      100         105         110
Thr Glu Leu Leu Ser Phe Val Gly Leu Thr Ser Lys Ala Trp Asp His
      115         120         125
Pro Asp Gln Leu Ser Gly Gly Gln Lys Gln Arg Val Gly Ile Ala Arg
      130         135         140
Ala Leu Ala Thr Lys Pro Ser Ile Leu Leu Ala Asp Glu Ser Thr Ser
145         150         155         160
Ala Leu Asp Pro Glu Thr Thr Ala Asp Val Leu Ser Leu Leu Lys Arg
      165         170         175
Val Asn Ala Glu Leu Gly Val Thr Val Val Val Ile Thr His Glu Met
      180         185         190
Glu Val Val Arg Ser Ile Ala Gln Gln Val Ser Val Leu Ala Ala Gly
      195         200         205
His Leu Val Glu Ser Gly Ser Ala Arg Gln Val Phe Ala His Pro Gln
      210         215         220
Ser Glu Thr Thr Gln Arg Phe Leu Ala Thr Ile Ile Gly Gln His Pro
225         230         235         240
Ser Gly Glu Glu Gln Ala Arg Leu Gln Ser Glu Asn Pro Asp Ala Arg
      245         250         255
Leu Val Asp Val Ser Ser Val Ala Ser His Ser Phe Gly Asp Ala
      260         265         270

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<210> 217  
 <211> 500  
 <212> DNA  
 <213> Homo sapiens

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<400> 217
nnacgcgtcg cgatgaaaga ggcgctgaaa ggtgccatcc agattccaac agtgactttt
60
agctctgaga agtccaatac tacagccctg gctgagttcg gaaaatacat tcataaagtc
120
tttccctacag tggtcagcac cagctttatc cagcatgaag tcgtggaaga gtatagccac
180
ctgttcacta tccaaggctc ggaccccagc ttgcagccct acctgctgat ggctcacttt
240
gatgtggtgc ctgcccctga agaaggctgg gaggtgcccc cattctctgg gttggagcgt
300
gatggcgtca tctatggttg gggcacactg gacgacaaga actctgtgat ggcattactg
360
caggcccttg agctcctgct gatcaggaag tacatcccc gaagatcttt cttcatttct
420
ctgggccatg atgaggagtc atcagggaca ggggctcaga ggatctcagc cctgctacag
480
tcaaggggcg tccagctagc
500

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<210> 218  
 <211> 166  
 <212> PRT

<213> Homo sapiens

<400> 218

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Xaa Arg Val Ala Met Lys Glu Ala Leu Lys Gly Ala Ile Gln Ile Pro
 1           5           10           15
Thr Val Thr Phe Ser Ser Glu Lys Ser Asn Thr Thr Ala Leu Ala Glu
 20           25           30
Phe Gly Lys Tyr Ile His Lys Val Phe Pro Thr Val Val Ser Thr Ser
 35           40           45
Phe Ile Gln His Glu Val Val Glu Glu Tyr Ser His Leu Phe Thr Ile
 50           55           60
Gln Gly Ser Asp Pro Ser Leu Gln Pro Tyr Leu Leu Met Ala His Phe
 65           70           75           80
Asp Val Val Pro Ala Pro Glu Glu Gly Trp Glu Val Pro Pro Phe Ser
 85           90           95
Gly Leu Glu Arg Asp Gly Val Ile Tyr Gly Trp Gly Thr Leu Asp Asp
100           105           110
Lys Asn Ser Val Met Ala Leu Leu Gln Ala Leu Glu Leu Leu Leu Ile
115           120           125
Arg Lys Tyr Ile Pro Arg Arg Ser Phe Phe Ile Ser Leu Gly His Asp
130           135           140
Glu Glu Ser Ser Gly Thr Gly Ala Gln Arg Ile Ser Ala Leu Leu Gln
145           150           155           160
Ser Arg Gly Val Gln Leu
165

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<210> 219

<211> 361

<212> DNA

<213> Homo sapiens

<400> 219

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acgcgttgaa acgggtatat tggggatgac gccgctgtgc aatatgcgca aggccataca
60
caaggctccgc acgctcccat gtccctcggt ttcgacagtt cttttgcgcc gcattatggc
120
gaagccgtcg agattgcgcc tgatatcaag cgcatacagg tcaacaaccc cagccccttc
180
acttttttcg gcaccaacag ttatctgata ggccgcgata cgctggcatt gatcgatccc
240
ggtccgcttg acgaggccca tcacgcggcg ctgctgcgtg ccattgccgg ccggccggtc
300
agccatatct ttgtcagcca cacacaccgg gaccactcgc cagtcgcgac ggttttgaaa
360
g
361

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<210> 220

<211> 102

<212> PRT

<213> Homo sapiens

<400> 220

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Met Ala Asp Arg Pro Ala Gly Asn Gly Thr Gln Gln Arg Arg Val Met

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      1           5           10           15
Gly Leu Val Lys Arg Thr Gly Ile Asp Gln Cys Gln Arg Ile Ala Ala
      20           25           30
Asp Gln Ile Thr Val Gly Ala Glu Lys Ser Glu Gly Ala Gly Val Val
      35           40           45
Asp Arg Asp Ala Leu Asp Ile Arg Arg Asn Leu Asp Gly Phe Ala Ile
      50           55           60
Met Arg Arg Lys Arg Thr Val Glu Asn Glu Gly His Gly Ser Val Arg
      65           70           75           80
Thr Leu Cys Met Ala Leu Arg Ile Leu His Ser Gly Val Ile Pro Asn
      85           90           95
Ile Pro Val Ser Thr Arg
      100

```

<210> 221  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

```

<400> 221
agatctctgt gtcgtcggct gcaaagagga tgagcccaga tgcataatcag gggctccctc
60
ccacatccca cctgctcggg cagcccacgg cagccccaca ctgctgcagc acacctcgct
120
gcagctctgg ttctctctca gaaatatccc tgccaccctg ctaagccttg gccaacactg
180
caccctgtcc caatgcggct ccagtgaacca cccccccagg gcataccctc ctacagagca
240
ttcccaaaaa aggctagagt agacaccagc ctgctccgta gggggcctcc accccattct
300
ccaaggcctc caccagggga cgcttggtga accagcatcc aggcttgccc caccctcctg
360
ctcagagtcc atgttctgtg acaagggtgg caactgggat t
401

```

<210> 222  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

```

<400> 222
Met Asp Ser Glu Gln Gly Gly Gly Pro Gly Leu Asp Ala Gly Ser Pro
      1           5           10           15
Gly Val Pro Gly Trp Arg Pro Trp Arg Met Gly Trp Arg Pro Pro Thr
      20           25           30
Glu Gln Ala Gly Val Tyr Ser Ser Leu Phe Trp Glu Cys Ser Val Gly
      35           40           45
Gly Tyr Ala Leu Gly Val Trp Ser Leu Glu Pro His Trp Asp Arg Val
      50           55           60
Gln Cys Trp Pro Arg Leu Ser Arg Val Ala Gly Ile Phe Leu Arg Arg
      65           70           75           80
Asn Gln Ser Cys Ser Glu Val Cys Cys Ser Ser Val Gly Leu Pro Trp
      85           90           95
Ala Ala Arg Ala Gly Gly Met Trp Glu Gly Ala Pro Asp Met His Leu

```



100 105 110  
 Gly Ser Ser Ser Leu Gln Pro Thr Thr Gln Arg Ser  
 115 120

<210> 223  
 <211> 331  
 <212> DNA  
 <213> Homo sapiens

<400> 223  
 tcatgaaatc tgtgggcagt gaccaggag ggtatgggca ggcccaacca ggttggtgtg  
 60  
 cccttgaagc cccacagacc tgccagggca gcagggcagt tgggagccgg agaacctgag  
 120  
 aaccaagcca ggctgcatgc aggaggtctg cactgaacg ctgcaggtgt tgccggcagc  
 180  
 cgtgggtgcct ggcagatagt gtctgacccc cnaggacctt cttgctgggc agccagtc  
 240  
 aaaaagctgtt cccgcttaag ccacccccac cgccttggcc acacctggca catgggtgaa  
 300  
 gcaagggcac ttcccggggc ttctgttcc c  
 331

<210> 224  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 224  
 Met Pro Leu Leu His Pro Cys Ala Arg Cys Gly Gln Gly Gly Gly  
 1 5 10 15  
 Gly Leu Ser Gly Asn Ser Phe Trp Thr Gly Leu Pro Ser Lys Val  
 20 25 30  
 Leu Gly Gly Arg Thr Leu Ser Ala Arg His His Gly Cys Arg Gln His  
 35 40 45  
 Leu Gln Arg Ser Arg Ala Ser Leu Leu His Ala Ala Trp Leu Gly Ser  
 50 55 60  
 Gln Val Leu Arg Leu Pro Thr Ala Leu Leu Pro Trp Gln Val Cys Gly  
 65 70 75 80  
 Ala Ser Arg Ala His Gln Pro Gly Trp Ala Cys Pro Tyr Pro Pro Gly  
 85 90 95  
 Ser Leu Pro Thr Asp Phe Met  
 100

<210> 225  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 225  
 tgatcacggg cgtgagccac cagcccagca tcccttgcc ttcattcgca cctccacctc  
 60  
 cagaatgacc ctcattccct cctgcacaga cggtgacagc agtaactcct aaaaacacca  
 120

ccagactgat cttcaagagc agaggaactc ccaatcacga ttccaccccc gccgggctct  
 180  
 caaatcctcc agggctgcct gctatggggg agggaggcac actttgcttg gctctcaagg  
 240  
 cctcagccag ccgggtccaa accaactccc agcctggcct caccatccca ccgccaaacc  
 300  
 tttgctcaca ctggcccctc ttcctggaac atgggectn  
 339

<210> 226  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 226  
 Met Thr Leu Ile Pro Ser Cys Thr Asp Gly Asp Ser Ser Asn Ser Tyr  
   1                  5                  10                  15  
 Lys His His Gln Thr Asp Leu Gln Glu Gln Arg Asn Ser Gln Ser Arg  
           20                  25                  30  
 Phe His Pro Arg Arg Ala Leu Lys Ser Ser Arg Ala Ala Cys Tyr Gly  
       35                  40                  45  
 Gly Gly Arg His Thr Leu Leu Gly Ser Gln Gly Leu Ser Gln Pro Gly  
       50                  55                  60  
 Pro Asn Gln Leu Pro Ala Trp Pro His His Pro Thr Ala Lys Pro Leu  
 65                  70                  75                  80  
 Leu Thr Leu Ala Pro Leu Pro Gly Thr Trp Ala  
                   85                  90

<210> 227  
 <211> 353  
 <212> DNA  
 <213> Homo sapiens

<400> 227  
 gtcgaccctc tcgattgtgg cgaactccat ggctgctgcg ggccctgcgta ggctctcgag  
 60  
 tagctcgacg tcgggttcgc gagggctcgc agcgtggcca tgctgcttct tggatggttc  
 120  
 gggcaactcc tcgggggatt cgagcagttc ttggcgcacc tgctctggcg tcatcccgga  
 180  
 ggccaggccg acaagtgtcg cctcctgccca cccgctgagc gacgctgccca tgttgagtac  
 240  
 ggcgtcttca ctggtcaggg cgagcgcggt atcgaccagg ttggcgcca ggccgagaga  
 300  
 cagcatgtct gctcagtcgc ggtgatgact ggagtggcgg tctcctgcac ggg  
 353

<210> 228  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 228  
 Met Leu Ser Leu Gly Leu Asp Ala Asn Leu Val Asp Thr Ala Leu Ala

```

      1           5           10           15
Leu Thr Ser Glu Asp Ala Val Leu Asn Met Ala Ala Ser Leu Ser Gly
      20           25           30
Trp Gln Glu Ala Ala Leu Val Gly Leu Ala Ser Gly Met Thr Pro Glu
      35           40           45
Gln Val Arg Gln Glu Leu Leu Glu Ser Pro Glu Glu Leu Pro Glu Pro
      50           55           60
Ser Lys Lys Gln His Gly His Ala Ala Ser Pro Arg Glu Pro Asp Val
      65           70           75           80
Glu Leu Leu Glu Ser Leu Arg Arg Pro Ala Ala Ala Met Glu Phe Ala
      85           90           95
Thr Ile Glu Gly Val Asp
      100

```

<210> 229  
 <211> 743  
 <212> DNA  
 <213> Homo sapiens

```

<400> 229
nnggctaggg acacggcctc ctcctcaaca ggccagtgcct gtgcaggctc aggggcatca
60
tcaaagataa cacagggctg gtcaggggct gctggctgct cctgccccag gactggctcc
120
aggatgggca aggctgcctc cctggtagcc agggggagag gggaaggag caccaggag
180
tgggccagca ggtgtggcat cggccaggag gagatggagg ccagcagcag ccaagaccag
240
agtaaagtgt ctgccccagg ggtgctcaca gcccaggacc gggtagttgg aaagccagcc
300
cagcttgga ctcagcggag ccaggaggca gatgttcagg actgggagtt cagaaagagg
360
gattccagg gcacttactc cagccgggat gcagaactcc aggaccagga attcggaaag
420
agagattcac tgggtaccta cagtagtcga gatgtaagcc ttggggactg ggaatttggg
480
aagagagatt ctctgggtgc ttatgccagc caagatgcc aagagcagg ccaagatttg
540
gggaagagg accaccatg taggtacagc agccaggatg ccgatgagca ggactgggag
600
tttcagaaga gagatgtgtc actcggcacc tatggcagcc gggctgcgga gccacaggaa
660
caggagtgtt ggaagagcgc ttggataagg gactacagca gtggtggcag ctccaggacc
720
cttgacgccc aggacagaag ctt
743

```

<210> 230  
 <211> 247  
 <212> PRT  
 <213> Homo sapiens

```

<400> 230
Xaa Ala Arg Asp Thr Ala Ser Ser Ser Thr Gly Ser Ala Cys Ala Gly

```

```

1           5           10           15
Ser Gly Ala Ser Ser Lys Ile Thr Gln Gly Trp Ser Gly Ala Ala Gly
20           25           30
Cys Ser Cys Pro Arg Thr Gly Ser Arg Met Gly Lys Ala Ala Ser Leu
35           40           45
Val Ala Arg Gly Arg Gly Glu Gly Ser Thr Arg Glu Trp Ala Ser Arg
50           55           60
Cys Gly Ile Gly Gln Glu Glu Met Glu Ala Ser Ser Ser Gln Asp Gln
65           70           75           80
Ser Lys Val Ser Ala Pro Gly Val Leu Thr Ala Gln Asp Arg Val Val
85           90           95
Gly Lys Pro Ala Gln Leu Gly Thr Gln Arg Ser Gln Glu Ala Asp Val
100          105          110
Gln Asp Trp Glu Phe Arg Lys Arg Asp Ser Gln Gly Thr Tyr Ser Ser
115          120          125
Arg Asp Ala Glu Leu Gln Asp Gln Glu Phe Gly Lys Arg Asp Ser Leu
130          135          140
Gly Thr Tyr Ser Ser Arg Asp Val Ser Leu Gly Asp Trp Glu Phe Gly
145          150          155          160
Lys Arg Asp Ser Leu Gly Ala Tyr Ala Ser Gln Asp Ala Asn Glu Gln
165          170          175
Gly Gln Asp Leu Gly Lys Arg Asp His His Gly Arg Tyr Ser Ser Gln
180          185          190
Asp Ala Asp Glu Gln Asp Trp Glu Phe Gln Lys Arg Asp Val Ser Leu
195          200          205
Gly Thr Tyr Gly Ser Arg Ala Ala Glu Pro Gln Glu Gln Glu Phe Gly
210          215          220
Lys Ser Ala Trp Ile Arg Asp Tyr Ser Ser Gly Gly Ser Ser Arg Thr
225          230          235          240
Leu Asp Ala Gln Asp Arg Ser
245

```

<210> 231  
 <211> 431  
 <212> DNA  
 <213> Homo sapiens

<400> 231  
 acgcgttggc caccgagagg ctggcgaggg tgtgcagcac ggcgcagtgt ggcaggggtcc  
 60  
 cagggtgcag cctgcgcagc agctcctcca tcaccttgct gatgaactgt cttcccacgg  
 120  
 ccaccaggac gccactcgcc gcctgctgcc agtcccagac caggtccttc gtcttggtca  
 180  
 tctcgctgga ggccaggagg atgatggtgc tggetgtgtc cttgtccagc tcaactggcgc  
 240  
 gactgctcag gaccctctcc atggccctca ggaccgctgc tcggtatggg tgtgccagct  
 300  
 tgtcatgctg ccgcagatac tcctgcgagg cacggagcgt ctccaccctg ctggacgccca  
 360  
 tcaccgataa ggacccctg gtgcaggagc aggtctgcag tgccctgtgc tccctcgggg  
 420  
 aggtgcggcc g  
 431

<210> 232  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 232  
 Met Ala Ser Ser Arg Val Glu Thr Leu Arg Ala Cys Glu Glu Tyr Leu  
 1 5 10 15  
 Arg Gln His Asp Lys Leu Ala His Pro Tyr Arg Ala Ala Val Leu Arg  
 20 25 30  
 Ala Met Glu Arg Val Leu Ser Ser Arg Ala Ser Glu Leu Asp Lys Asp  
 35 40 45  
 Thr Ala Ser Thr Ile Ile Leu Leu Ala Ser Ser Glu Met Thr Lys Thr  
 50 55 60  
 Lys Asp Leu Val Trp Asp Trp Gln Gln Ala Ala Ser Gly Val Leu Val  
 65 70 75 80  
 Ala Val Gly Arg Gln Phe Ile Ser Lys Val Met Glu Glu Leu Leu Arg  
 85 90 95  
 Arg Leu His Pro Gly Thr Leu Pro His Cys Ala Val Leu His Thr Leu  
 100 105 110  
 Ala Ser Leu Ser Val Ala Asn Ala  
 115 120

<210> 233  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

<400> 233  
 acgcgttcag ggatgccaga aatctaactg ggtaataaaa agctgggaga acattccaga  
 60  
 aagggtgggca cccttagcat tcccaaaaag caccagccct cctcatcctt cccagcttct  
 120  
 gtgctggaat gcacccccat cggaaaggct cgaaaactca ggacacatta ggatcacctg  
 180  
 gaaagcattt gtcaaaacgc atctccctgc gggtcagggt ccaagttaaa atcaaacttc  
 240  
 aggtgatgct gactcagggt gctccagaaa cacctgggga agcagcactt tggaggctgc  
 300  
 ctctcacatc caccacacag caagtgggca gggagctagg taaatctect tcccagttga  
 360  
 gaaggggctc ggagcaggca cagagaagag atacccttag aatgcaagtt gttagctgc  
 420  
 gaaagtccag cctgcaggct tcctgggcaa gctagtgggc tgaagtatgc cacagcaaca  
 480  
 ggcttctaga gccggctgcc cagctcctac tctgcctctg ccactcactg actgtgtggt  
 540  
 cttgagcagg tcacctgtct gacttgggtga gagctgacag gcatacctg ttagaggett  
 600  
 acgcgt  
 606

<210> 234

<211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 234  
 Met His Pro His Arg Lys Gly Ser Lys Thr Gln Asp Thr Leu Gly Ser  
 1 5 10 15  
 Pro Gly Lys His Leu Ser Lys Arg Ile Ser Leu Arg Val Arg Val Gln  
 20 25 30  
 Val Lys Ile Lys Leu Gln Val Met Leu Thr Gln Val Ala Pro Glu Thr  
 35 40 45  
 Pro Gly Glu Ala Ala Leu Trp Arg Leu Pro Leu Thr Ser Thr Pro Gln  
 50 55 60  
 Gln Val Gly Arg Glu Leu Gly Lys Ser Pro Ser Gln Leu Arg Arg Gly  
 65 70 75 80  
 Ser Glu Gln Ala Gln Arg Arg Asp Thr Leu Arg Met Gln Val Val Gln  
 85 90 95  
 Leu Arg Lys Ser Ser Leu Gln Ala Ser Trp Ala Ser  
 100 105

<210> 235  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 235  
 cgaccgttga ctattctcta caaaccacaa agacaatgat tgatttaact gaatttagaa  
 60  
 atagcaaaca cttaaaacag cagcagtaca gagctgaaaa ccagattctt ttgaaagaga  
 120  
 ttgaaagtct agaggaagaa cgacttgatc tgaaaaaaaa aattcgccaa atgggtcaag  
 180  
 aaagaggaaa aagaagggca acttcaggat taaccactgg ggacctgaac ctaactgaaa  
 240  
 acatttctca aggagataga ataagtgaaa gaaaattgga tttattgagc ctcaaaaata  
 300  
 tgagtgaagc acaatcaaag aatgaatt  
 328

<210> 236  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 236  
 Met Ile Asp Leu Thr Glu Phe Arg Asn Ser Lys His Leu Lys Gln Gln  
 1 5 10 15  
 Gln Tyr Arg Ala Glu Asn Gln Ile Leu Leu Lys Glu Ile Glu Ser Leu  
 20 25 30  
 Glu Glu Glu Arg Leu Asp Leu Lys Lys Lys Ile Arg Gln Met Ala Gln  
 35 40 45  
 Glu Arg Gly Lys Arg Arg Ala Thr Ser Gly Leu Thr Thr Gly Asp Leu  
 50 55 60  
 Asn Leu Thr Glu Asn Ile Ser Gln Gly Asp Arg Ile Ser Glu Arg Lys

65                                      70                                      75                                      80  
 Leu Asp Leu Leu Ser Leu Lys Asn Met Ser Glu Ala Gln Ser Lys Asn  
                                     85                                      90                                      95  
 Glu

<210> 237  
 <211> 2059  
 <212> DNA  
 <213> Homo sapiens

<400> 237  
 gccataagg gcacgacgca ttcctagccg atgcaccaac acgggcatga agcctgccga  
 60  
 gagcacgaag ccggcggtcca tagctacggc ccatacggtc atgtctgcca tggctccggt  
 120  
 gatgtcagac tgcacatgaa atcgggttacg gtaccccagg atcatcgcta ccgagtacac  
 180  
 cccgaacagc acccgctggg cgccgatcag cgtgagggag tgccccacca gtggcacttt  
 240  
 tcttagatag cggaaacct ccaccacatc ccagtcacc gttctcatcg tccgggaacg  
 300  
 atccaccagt ggcggcccaa gctcccgacg tgaaaactgc agcccctagg cgaccgagac  
 360  
 tgcgaagagg gctgcggaga tgcagaaaat gatcgtgtcg gcgtggtgca caggaatatg  
 420  
 gcgtccggca atcatgcgca ctgctgcagc aacaaccgca ccgatcatga gccctagcgg  
 480  
 ccaatcggtg gcattgattga cgatgccgtc aggtagtgcg gcttgctgat ggtgtattcc  
 540  
 aaccagcgca ccaaggcggt gagcaaaaac cggttcaggc tcatcgcgat gagcaaccca  
 600  
 atgagcaagg ccagggtggga gggcttatcg cgcgcaccac ccagaccaa gatccccagc  
 660  
 ccgaccaggg tgacggcacg cattcatctg cgtattgtcc cgactacacc gtgagggcgc  
 720  
 tctctgatct gcagctcatc aagggttacg gactgcagta cctcaatgca ctctggcta  
 780  
 cccgagccca gaacctgccca cagtcccctg agaacaccga cctgcagggt attccaggca  
 840  
 gccagaccag gtccttggtt gagaagacca ccacagcggc agctttccca gtagcccttt  
 900  
 ccctctttgg cacagttgga acctccagtt gataaatgac tgtggactag cgcgcgtttt  
 960  
 ttgttttcag agcacacgta aggggtccagc cacagcaggc ccggcggtccc ggtggaaggc  
 1020  
 agccctgggc ggaaccaggg cgtttaacgg ctacttaggc agcccagat ctggggaagc  
 1080  
 agatgagcac gtggggagct ggagtgagct gagcagaagt tttgtgccc cctgccccca  
 1140  
 tccccccag gccacgtttt agatggccct tgtagttgcg ggtcctgggt gtcctcagaa  
 1200  
 ctagacatca atgcctggat ccttcagccg gccctgccct cctttaggag acaggagtca  
 1260

ccagggcaca gccctccagg cccgcctcag gaaggaatga aaggaatgcc atcatctcta  
 1320  
 gttcccaggg cccagccttc cccttctccc ccggggcagg gacagtgcgg catattcaga  
 1380  
 ttcagacctc tttgggtga gccacctgtg gagtgcagtt actgcctttg tgtggcctg  
 1440  
 acctctatct gtttgctttt aatttgccaa cctatcgctg ctggcagcac tttttgagca  
 1500  
 agccgagagc acccattttg gctggggatt cagatcgatg gccttgcca tgtgtcctt  
 1560  
 tctggcttcc ctgatggtgt catgtttcag cgcatgcgcc ccagccttcc ccatgtgcca  
 1620  
 aaccagaagc tccactgccc gtaggctgtc cctgtagccc tgctccctcc ctggaggctg  
 1680  
 ctcttctgat tctgagagct ggcctagtgg tgctgagggc ccctttctgc ttctctgccc  
 1740  
 acctgctgag ttgccactcg cagtgttgct agttccctg tttctgagaag aggtcatgcc  
 1800  
 tgggaggaag ggatcgcat gctgcatcga atcctctctc cgcctgtgtg ccccaggag  
 1860  
 agtagctgcc tgttgacact gctccacacc tccccacagc ctccctgcag gtgctgtgtg  
 1920  
 gccgtgatgt gcagagagca gtgaggagg gttcatgaac caggtggatc ctctttaaaa  
 1980  
 aaaaaaaaaa tttttgttat atctctaaaa tcccatagct aggaacagaa aaaaaggaaa  
 2040  
 agacttgaaa tgttctaga  
 2059

<210> 238  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 238  
 Ala Glu Gln Lys Phe Cys Ala Arg Leu Pro Pro Ser Pro Pro Gly His  
 1 5 10 15  
 Val Leu Asp Gly Pro Cys Ser Cys Gly Ser Trp Val Ser Ser Glu Leu  
 20 25 30  
 Asp Ile Asn Ala Trp Ile Leu Gln Pro Ala Leu Pro Ser Phe Arg Arg  
 35 40 45  
 Gln Glu Ser Pro Gly His Ser Pro Pro Gly Pro Pro Gln Glu Gly Met  
 50 55 60  
 Lys Gly Met Pro Ser Ser Leu Val Pro Arg Ala Gln Pro Ser Pro Ser  
 65 70 75 80  
 Pro Pro Gly Gln Gly Gln Cys Gly Ile Phe Arg Phe Arg Pro Leu Trp  
 85 90 95  
 Ala Glu Pro Pro Cys Glu Cys Ser Tyr Cys Leu Cys Val Ala Val Thr  
 100 105 110  
 Ser Ile Cys Leu Leu Leu Ile Cys Gln Pro Ile Ala Ala Gly Ser Thr  
 115 120 125  
 Phe



<210> 239  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 239  
 ntctagatca ctctgtagcg catgggtaaa tgctgacaca atagaaaagt gcgaggacat  
 60  
 cctcgaatta atgagatggg ggactggatg agtcaagttc tcgtcgttgc ggcggctgtc  
 120  
 ggtcagctgc cctcctcca cttctgcttc tcggcggtac ccataaccgt attggccgag  
 180  
 tgttcacctt tgaatgcagc catgtcgtcg tctccgtatc gaaatgatgt gccatcgaag  
 240  
 atgccgacct cagcaccggc atctgcagtg atgagtgcgt atcgcgccac acgaaacgcc  
 300  
 cagcgcaacc gtgtcctcgc acgatacgaa gtgcttgggt atctcagctc tggtagctat  
 360  
 ggtagctgtat ataaagcaaa ggaacttn  
 388

<210> 240  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 240  
 Met Val Asp Trp Met Ser Gln Val Leu Val Val Ala Ala Ala Val Gly  
 1 5 10 15  
 Gln Leu Pro Leu Leu His Phe Cys Phe Ser Ala Leu Pro His Thr Val  
 20 25 30  
 Leu Ala Ala Cys Ser Pro Leu Asn Ala Ala Met Ser Ser Ser Pro Tyr  
 35 40 45  
 Arg Asn Asp Val Pro Ser Lys Met Pro Thr Ser Ala Ser Ala Ser Ala  
 50 55 60  
 Val Met Ser Ala Tyr Arg Ala Thr Arg Asn Ala Gln Arg Asn Arg Val  
 65 70 75 80  
 Leu Ala Arg Tyr Glu Val Leu Gly Tyr Leu Ser Ser Gly Thr Tyr Gly  
 85 90 95  
 Arg Val Tyr Lys Ala Lys Glu Leu  
 100

<210> 241  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 241  
 ncggggggcc gagttgaaag ctgccggcac actggctgtg ctgcttgctt cacttctcgg  
 60  
 gatgctgctt ccagggcggg cctgggggaa acatcggcct tcccaggcac ccttagcccg  
 120  
 tcccatctgg gggcccttag cacagtcctt gggacccac atgctgcctt tcaggtgat  
 180

gtgggcaaac tcggcagccc agcctactcc cgggccatgg gccaccatct cagcttcct  
 240  
 ggggctaagc cgtgtgctct gaatcaaaag cagtagtggc atcggcggca ctggcgccat  
 300  
 gggaaacggg ttgacttgca caaccagcac  
 330

<210> 242  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 242  
 Met Ala Pro Val Pro Pro Met Pro Leu Leu Leu Ile Gln Ser Thr  
 1 5 10 15  
 Arg Leu Ser Pro Arg Glu Ala Glu Met Val Ala His Gly Pro Gly Val  
 20 25 30  
 Gly Trp Ala Ala Glu Phe Ala His Ile Ser Leu Lys Gly Ser Met Trp  
 35 40 45  
 Gly Pro Arg Asp Cys Ala Lys Gly Pro Gln Met Gly Arg Ala Lys Gly  
 50 55 60  
 Ala Trp Glu Gly Arg Cys Phe Pro Gln Ala Arg Pro Gly Ser Ser Ile  
 65 70 75 80  
 Pro Arg Ser Glu Ala Ser Ser Thr Ala Ser Val Pro Ala Ala Phe Asn  
 85 90 95  
 Ser Ala Pro Arg  
 100

<210> 243  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 243  
 nnaccttctc tccgcgttat taccaaagat gctatgcacg taactgcgga ggaaattctt  
 60  
 cacacaggcc accccgcccc cactgcgctc gtcgctaate ttccctataa cgttgcggtg  
 120  
 cccgtactgc tacacatgct agatattctc ccctccttgc ggactacagt ggtgatggtg  
 180  
 caggcagaag tagccgatcg attggctgcc acaccaggca gccgcattta cgggtgtcccc  
 240  
 agcgtcaaag tcaactttta cgggactgtc tcgcgctgcg gagcaattgg acgcaatgtc  
 300  
 ttctggcggg ctcccaatgt tgattctggn  
 330

<210> 244  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 244  
 Xaa Pro Ser Leu Arg Val Ile Thr Lys Asp Ala Met His Val Thr Ala

```

      1           5           10           15
Glu Glu Ile Leu His Thr Gly His Pro Ala Pro Thr Ala Leu Val Ala
      20           25           30
Asn Leu Pro Tyr Asn Val Ala Val Pro Val Leu Leu His Met Leu Asp
      35           40           45
Ile Leu Pro Ser Leu Arg Thr Thr Val Val Met Val Gln Ala Glu Val
      50           55           60
Ala Asp Arg Leu Ala Ala Thr Pro Gly Ser Arg Ile Tyr Gly Val Pro
      65           70           75           80
Ser Val Lys Val Asn Phe Tyr Gly Thr Val Ser Arg Ala Gly Ala Ile
      85           90           95
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&lt;210&gt; 245

&lt;211&gt; 355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 245

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&lt;210&gt; 246

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 246

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Trp Thr Asn Ser Met Leu Trp Leu Pro Xaa Pro Pro Thr Ala Trp Thr
      20           25           30
Gly Lys Ile Phe Val Val Asn Ser Arg Trp Met Pro Arg Asp Ala Ser
      35           40           45
Ile Arg Ser Glu Cys Arg Leu Pro Pro Thr Val Asn Phe Cys Phe Cys
      50           55           60
Asn Thr Leu His Ser Thr Phe Pro Arg Trp Val Trp Leu Pro Ser Ser
      65           70           75           80
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Lys Leu Gly Gly Gly
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 35 40 45  
 Val Asp Arg Val Phe Val Asp His Pro Leu Phe Leu Glu Arg Val Trp  
 50 55 60  
 Gly Lys Thr Glu Glu Lys Ile Tyr Gly Pro Asp Ala Gly Thr Asp Tyr  
 65 70 75 80  
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<210> 250

<211> 927

<212> PRT

<213> Homo sapiens

<400> 250

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			20					25					30		
Phe	Val	Gln	Arg	Asn	Pro	Gly	Gly	Ser	Pro	Arg	Thr	Ala	Cys	His	Leu
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Asn	Pro	Ser	Pro	Asp	Gly	Glu	Ala	Tyr	Thr	Leu	Ala	Ser	Arg	Pro	Pro
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Val	Arg	Leu	Asn	Asp	Val	Met	Leu	Arg	Leu	Val	Thr	Glu	Leu	Arg	Trp
					70					75				80	
Gln	Lys	Phe	Val	Met	Phe	Tyr	Asp	Ser	Glu	Tyr	Asp	Ile	Arg	Gly	Leu
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Gln	Ser	Phe	Leu	Asp	Gln	Ala	Ser	Arg	Leu	Gly	Leu	Asp	Val	Ser	Leu
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Gln	Lys	Val	Asp	Lys	Asn	Ile	Ser	His	Val	Phe	Thr	Ser	Leu	Phe	Thr
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Thr	Met	Lys	Thr	Glu	Glu	Leu	Asn	Arg	Tyr	Arg	Asp	Thr	Leu	Arg	Arg
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Ala	Ile	Leu	Leu	Leu	Ser	Pro	Gln	Gly	Ala	His	Ser	Phe	Ile	Asn	Glu
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Ala	Val	Glu	Thr	Asn	Leu	Ala	Ser	Lys	Asp	Ser	His	Trp	Val	Phe	Val
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Asn	Glu	Glu	Ile	Ser	Asp	Pro	Glu	Ile	Leu	Asp	Leu	Val	His	Ser	Ala
			180					185					190		
Leu	Gly	Arg	Met	Thr	Val	Val	Arg	Gln	Ile	Phe	Pro	Ser	Ala	Lys	Asp
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Asn	Gln	Lys	Cys	Thr	Arg	Asn	Asn	His	Arg	Ile	Ser	Ser	Leu	Leu	Cys
			210			215					220				
Asp	Pro	Gln	Glu	Gly	Tyr	Leu	Gln	Met	Leu	Gln	Ile	Ser	Asn	Leu	Tyr
					230					235				240	
Leu	Tyr	Asp	Ser	Val	Leu	Met	Leu	Ala	Asn	Ala	Phe	His	Arg	Lys	Leu
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Glu	Asp	Arg	Lys	Trp	His	Ser	Met	Ala	Ser	Leu	Asn	Cys	Ile	Arg	Lys



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Lys	Gly	His	Ile	Thr	Gly	Leu	Thr	Gly	Val	Met	Glu	Phe	Arg	Glu	Asp	
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Ser	Ser	Asn	Pro	Tyr	Val	Gln	Phe	Glu	Ile	Leu	Gly	Thr	Thr	Tyr	Ser	
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Glu	Thr	Phe	Gly	Lys	Asp	Met	Arg	Lys	Leu	Ala	Thr	Trp	Asp	Ser	Glu	
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Lys	Gly	Leu	Asn	Gly	Ser	Leu	Gln	Glu	Arg	Pro	Met	Gly	Ser	Arg	Leu	
		340						345					350			
Gln	Gly	Leu	Thr	Leu	Lys	Val	Val	Thr	Val	Leu	Glu	Glu	Pro	Phe	Val	
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Met	Val	Ala	Glu	Asn	Ile	Leu	Gly	Gln	Pro	Lys	Arg	Tyr	Lys	Gly	Phe	
	370					375					380					
Ser	Ile	Asp	Val	Leu	Asp	Ala	Leu	Ala	Lys	Ala	Leu	Gly	Phe	Lys	Tyr	
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Glu	Ile	Tyr	Gln	Ala	Pro	Asp	Gly	Arg	Tyr	Gly	His	Gln	Leu	His	Asn	
			405						410					415		
Thr	Ser	Trp	Asn	Gly	Met	Ile	Gly	Glu	Leu	Ile	Ser	Lys	Arg	Ala	Asp	
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			485						490					495		
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Ile	Val	Tyr	Gly	Ala	Phe	Val	Gln	Gln	Gly	Gly	Glu	Ser	Ser	Val	Asn	
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Ile	Val	Cys	Ser	Ser	Tyr	Thr	Ala	Asn	Leu	Ala	Ala	Phe	Leu	Thr	Val	
			565						570					575		
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Arg Ile Leu Glu Leu Gln Asp Thr Gly Asp Leu Asp Val Leu Lys Gln
705              710              715              720
Lys Trp Trp Pro His Met Gly Arg Cys Asp Leu Thr Ser His Ala Ser
              725              730              735
Ala Gln Ala Asp Gly Lys Ser Leu Lys Leu His Ser Phe Ala Gly Val
              740              745              750
Phe Cys Ile Leu Ala Ile Gly Leu Leu Ala Cys Leu Val Ala Ala
              755              760              765
Leu Glu Leu Trp Trp Asn Ser Asn Arg Cys His Gln Glu Thr Pro Lys
              770              775              780
Glu Asp Lys Glu Val Asn Leu Glu Gln Val His Arg Arg Met Asn Ser
785              790              795              800
Leu Met Asp Glu Asp Ile Ala His Lys Gln Ile Ser Pro Ala Ser Ile
              805              810              815
Glu Leu Ser Ala Leu Glu Met Gly Gly Leu Ala Pro Thr Gln Thr Leu
              820              825              830
Glu Pro Thr Arg Glu Tyr Gln Asn Thr Gln Leu Ser Val Ser Thr Phe
              835              840              845
Leu Pro Glu Gln Ser Ser His Gly Thr Ser Arg Thr Leu Ser Ser Gly
              850              855              860
Pro Ser Ser Asn Leu Pro Leu Pro Leu Ser Ser Ser Ala Thr Met Pro
865              870              875              880
Ser Met Gln Cys Lys His Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln
              885              890              895
Ser Pro Val Lys Thr Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly
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Gly Val Leu Pro Glu Ala Leu Asp Thr Ser His Gly Thr Ser Ile
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<210> 251  
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 <212> DNA  
 <213> Homo sapiens

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291

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<210> 252  
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 <212> PRT  
 <213> Homo sapiens

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Arg Ala Ser Val Val Ile Leu Ile Glu Tyr His His Ser Val Thr Leu
      35           40           45
Leu Leu Arg Val Arg Gly Asn Ser Pro Leu Glu Arg Glu Ala Leu Glu
      50           55           60
Ala Arg Arg Arg Ile Asp Ala Lys Val Pro Ala Leu Val Glu Ser Ala
      65           70           75           80
Ile Ala Glu Gly Gly Leu Arg Ser Asp Phe Thr Pro Gly Leu Ile Thr
      85           90           95
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<210> 253  
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 <212> DNA  
 <213> Homo sapiens

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327

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<210> 254  
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 <212> PRT  
 <213> Homo sapiens

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      20           25           30
Arg Ser Thr Asn Arg Ala His Met Ser Ala Val Met Ala Gly Thr Leu
      35           40           45
Arg Glu Lys Ala Gly Lys Val Glu Arg Ala Asn Asp Arg Arg Thr Val
      50           55           60
Gly Thr Leu His Glu Arg Asp Glu Lys Leu Ala Ala Gly Arg Ser Leu
      65           70           75           80
Val Ala Val Ser Ser Ala Val Ser Ile Thr Val Pro Ala Thr Trp Asn
      85           90           95
Ala His Asp Phe Gly Arg Arg Leu Asp Ala
      100          105

```

<210> 255  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 255  
 ctagaaatgg ctggctacga atacatggaa gctgaaaata gccacaagc ccacgaaatt  
 60  
 atcgtggacc atagacctga cttaatctta tgtgattgga tgatgccagg agggagtggc  
 120  
 atcgagctaa ctgcgcgctt aaagaaagac agcacgacag cagaaatccc tggtatttta  
 180  
 ctaacggcca aaagtgaaga agacaataaa attcaaggct tagaagtcgg tgcagatgac  
 240  
 tacatcacta aacctttctc tcctcgtgaa ctagtagcac gcctcaaggc ggtattacgc  
 300  
 cgagcgactc cacaaggtat tgatgatcct attgaaattg atggtttaac gcttgatccc  
 360  
 attagccaac gc  
 372

<210> 256  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 256  
 Leu Glu Met Ala Gly Tyr Glu Tyr Met Glu Ala Glu Asn Ser Gln Gln  
 1 5 10 15  
 Ala His Glu Ile Val Asp His Arg Pro Asp Leu Ile Leu Cys Asp  
 20 25 30  
 Trp Met Met Pro Gly Gly Ser Gly Ile Glu Leu Thr Arg Arg Leu Lys  
 35 40 45  
 Lys Asp Ser Thr Thr Ala Glu Ile Pro Val Ile Leu Leu Thr Ala Lys  
 50 55 60  
 Ser Glu Glu Asp Asn Lys Ile Gln Gly Leu Glu Val Gly Ala Asp Asp  
 65 70 75 80  
 Tyr Ile Thr Lys Pro Phe Ser Pro Arg Glu Leu Val Ala Arg Leu Lys  
 85 90 95  
 Ala Val Leu Arg Arg Ala Thr Pro Gln Gly Ile Asp Asp Pro Ile Glu  
 100 105 110  
 Ile Asp Gly Leu Thr Leu Asp Pro Ile Ser Gln Arg  
 115 120

<210> 257  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

<400> 257  
 nnacgcgtag cggctcgaggt tgcggacacc atgcccgaac ccggcctgct cgccatcgag  
 60  
 gcacccatgg gacacggcaa gaccgaggcc gccctcatgt gcgcacaggt gctcgccgaa  
 120

cgggttcgggc tcggcggcat cttcttcggt ctaccgacga tggccacgtc caatcccatg  
 180  
 ttcgggtcgag ttcgggaatg gctggacgct gtgccagcca aggaccgctc aagcatttcc  
 240  
 ctgggtcact cgaaagctgg actcaacgag gagtaccagc agtcatgcc gtggaacgcc  
 300  
 accatggcgg tctacgacga aggtgccggc acgcagcgtg aagcttcggc gatcgtccat  
 360  
 gagtggttct tgggcccga ggcgcgcatc ctggccgacc acgtcgtcgg gaccatcgac  
 420  
 caggcactgt tcaccggtct caaagccaag catgtggtgt tacgccacct cggctctggcg  
 480  
 agcaaggctg tcatcattga tgaggtccac gccgcgacg tctatatgcy cgaatacctc  
 540  
 aaggctcgtc tcgaatggct cggcgccctac cgcacgccag tcatcctcat gtccgcgacg  
 600  
 ctgccaccgg cccaacgtca tgaactcgcg ctagcgtag  
 639

<210> 258  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 258  
 Xaa Arg Val Ala Val Glu Val Ala Asp Thr Met Pro Glu Pro Gly Leu  
 1 5 10 15  
 Leu Ala Ile Glu Ala Pro Met Gly His Gly Lys Thr Glu Ala Ala Leu  
 20 25 30  
 Met Cys Ala Gln Val Leu Ala Glu Arg Phe Gly Leu Gly Gly Ile Phe  
 35 40 45  
 Phe Gly Leu Pro Thr Met Ala Thr Ser Asn Pro Met Phe Gly Arg Val  
 50 55 60  
 Arg Glu Trp Leu Asp Ala Val Pro Ala Lys Asp Pro Ser Ser Ile Ser  
 65 70 75 80  
 Leu Ala His Ser Lys Ala Gly Leu Asn Glu Glu Tyr Gln Gln Leu Met  
 85 90 95  
 Pro Trp Asn Ala Thr Met Ala Val Tyr Asp Glu Gly Ala Gly Thr Gln  
 100 105 110  
 Arg Glu Ala Ser Ala Ile Val His Glu Trp Phe Leu Gly Arg Lys Arg  
 115 120 125  
 Ala Ile Leu Ala Asp His Val Val Gly Thr Ile Asp Gln Ala Leu Phe  
 130 135 140  
 Thr Gly Leu Lys Ala Lys His Val Val Leu Arg His Leu Gly Leu Ala  
 145 150 155 160  
 Ser Lys Val Val Ile Asp Glu Val His Ala Ala Asp Val Tyr Met  
 165 170 175  
 Arg Glu Tyr Leu Lys Val Val Leu Glu Trp Leu Gly Ala Tyr Arg Thr  
 180 185 190  
 Pro Val Ile Leu Met Ser Ala Thr Leu Pro Pro Ala Gln Arg His Glu  
 195 200 205  
 Leu Ala Leu Ala Tyr  
 210

<210> 259  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 259  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatggtgtg tgcacgtgtg cnaactgtgta tgcattggtaa tgtgcacgtg tgcantgtgtg  
 120  
 tgtnggtgtg tatgcatgng tgtgtgcacg tgtgcactgn agtgtgggggt gtatgcatgg  
 180  
 tgtgtgcaca tgagcactgt gtggtgtgta tgcattggtgn ggtgcacgtg tgcactgtgt  
 240  
 atgcaatggg gt  
 252

<210> 260  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 260  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Xaa Val Cys Xaa Cys Val Cys Met Xaa Val  
 35 40 45  
 Cys Thr Cys Ala Leu Xaa Cys Gly Val Tyr Ala Trp Cys Val His Met  
 50 55 60  
 Ser Thr Val Trp Cys Val Cys Met Val Xaa Cys Thr Cys Ala Leu Cys  
 65 70 75 80  
 Met Gln Trp Cys

<210> 261  
 <211> 1202  
 <212> DNA  
 <213> Homo sapiens

<400> 261  
 gctagcccgg tcgcgttcgt cgtcgatttg ctggcggcag tcccctcgat cgtcttcggt  
 60  
 ctgtggggcg gcacgtctct cggatcgctg ggaatcatca acggttacgc gggggcctta  
 120  
 ttcaaagcgc tcggtcggat tccgatcttt tccgaagatc cgtcgtggtc ctcggtact  
 180  
 ggcaaggctc accttgccag tctcgtcctg gccatcatga tcttgccaat tatcactgct  
 240  
 gttagccgag acgtcatgcc ccgaacgccc catgatcaag tcgaggccgc gctcgccctc  
 300  
 ggatcgacgc gctggggagg catcaagctt gcagtgttcc cccactcgcg gtccggcatc  
 360

atttcgggat ccatgttggg tctaggacgc gccctcggcg agaccctggc tgtcacccctc  
 420  
 atctgcaga cgatgagccc catggcgctc aaacagaacc tcaacctgtc gatcttcgtc  
 480  
 ggtggtgaga cattcgcgtc gaagattgcc ggtaacttct ccgaggccat tagcgatccc  
 540  
 acctcgctgg gtgccctcgt ggcgtcggcc ctggccctgt tcgtcattac cttcgtgggc  
 600  
 aacgcgactg cccggttgat tgcggcgaag ggggttaagc gatgagcgcc accaccctc  
 660  
 accacatcac ccaccatggc gacaacacgc ccggacagct agatctctcc cgcccgtctg  
 720  
 gtaaacggac tatcaagagc ggctgcgctt caacattcat gatcgtggcc accgtactgg  
 780  
 ctgttatccc actggcctgg ctgctcttcg cggcgtccg gcgcggcacc ggatcactat  
 840  
 tccacgcgtc gtggtggacc cactcgatgg atccctcctt cgacttggcc gagcagggcg  
 900  
 ccattcacgc tatcgtcgga acccttgaaa ttggccttat tacatcgatt atctcgttac  
 960  
 cgatcgctct gatgaccgcg atcttcttag tcgagtaacg ccgcggaact aagatcgcca  
 1020  
 aggtcattag cttcgccgtc gacgtgctaa ccggtgtacc ttcaatcgtc gcggccctct  
 1080  
 tcgtcttcgc cgtagtcgtt accaccttcg gtggcaccca atcccgctgg gcctcctcgt  
 1140  
 tggccctcat gacctcatg gtcccgacgg tgctcgcatc aaccgaggaa atgctcaagc  
 1200  
 tt  
 1202

<210> 262  
 <211> 214  
 <212> PRT  
 <213> Homo sapiens

<400> 262  
 Ala Ser Pro Val Ala Phe Val Val Asp Leu Leu Ala Ala Val Pro Ser  
 1 5 10 15  
 Ile Val Phe Gly Leu Trp Gly Gly Ile Val Phe Gly Ser Ser Gly Ile  
 20 25 30  
 Ile Asn Gly Tyr Ala Gly Ala Leu Phe Lys Ala Leu Gly Trp Ile Pro  
 35 40 45  
 Ile Phe Ser Glu Asp Pro Ser Trp Ser Ser Ala Thr Gly Thr Val Tyr  
 50 55 60  
 Leu Ala Ser Leu Val Leu Ala Ile Met Ile Leu Pro Ile Ile Thr Ala  
 65 70 75 80  
 Val Ser Arg Asp Val Met Pro Arg Thr Pro His Asp Gln Val Glu Ala  
 85 90 95  
 Ala Leu Ala Leu Gly Ser Thr Arg Trp Glu Val Ile Lys Leu Ala Val  
 100 105 110  
 Phe Pro His Ser Arg Ser Gly Ile Ile Ser Gly Ser Met Leu Gly Leu  
 115 120 125  
 Gly Arg Ala Leu Gly Glu Thr Leu Ala Val Thr Leu Ile Leu Gln Thr

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      130              135              140
Met Ser Pro Met Ala Leu Lys Gln Asn Leu Asn Leu Ser Ile Phe Val
145              150              155              160
Gly Gly Glu Thr Phe Ala Ser Lys Ile Ala Gly Asn Phe Ser Glu Ala
      165              170              175
Ile Ser Asp Pro Thr Ser Leu Gly Ala Leu Val Ala Ser Ala Leu Ala
      180              185              190
Leu Phe Val Ile Thr Phe Val Val Asn Ala Thr Ala Arg Leu Ile Ala
      195              200              205
Ala Lys Gly Val Lys Arg
      210

```

<210> 263  
 <211> 424  
 <212> DNA  
 <213> Homo sapiens

```

<400> 263
acgcgtgagt gctctgcgct ggaaacaacg gtgatagagc ccatccgccg tgaactttcc
60
gacgtggtgc tcgtgaacaa gctcgaaaag tatgtacgcg aacgtacctc ggaagacggt
120
gcgcacatgg aagaggatgc ggaccagacg ggcaacgaca tcctcacgac gatcctgctg
180
tcgaactggg atccactatt ggatatgacg acgcaggatc atgtgctggc catgcaaaag
240
gcttatatgg cctcgccatt ccgtgccaat ttggacctgg catacccatc ttcgacgcca
300
caggcccagt ccagccggc gatgccgccg tgggagacag ggacctcagc cagtagcatg
360
gcggatgctc gtgaatttgc gctgctgaag ctgtacctgc gtagcttgct gcagaagcac
420
gann
424

```

<210> 264  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

```

<400> 264
Met Glu Glu Asp Ala Asp Gln Thr Gly Asn Asp Ile Leu Thr Thr Ile
1      5      10      15
Leu Leu Ser Asn Trp Asp Pro Leu Leu Asp Met Thr Thr Gln Asp His
      20      25      30
Val Leu Ala Met Gln Lys Ala Tyr Met Ala Ser Pro Phe Arg Ala Asn
      35      40      45
Leu Asp Leu Ala Tyr Pro Ser Ser Thr Pro Gln Ala Gln Ser Gln Pro
      50      55      60
Ala Met Pro Pro Trp Glu Thr Gly Thr Ser Ala Ser Ser Met Ala Asp
65      70      75      80
Ala Arg Glu Phe Ala Leu Leu Lys Leu Tyr Leu Arg Ser Leu Leu Gln
      85      90      95
Lys His Xaa

```



<210> 265  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 265  
 ncgtacggcc ctggcgctccg catggacgag ggataccatt ccggcatgac ggtgccgggt  
 60  
 gccttcgact ccctcatcgg caagctcatc atcactgggtg atagccgtga gcaagccctg  
 120  
 gctcgagctg cccgcgccct cgacgaaatc gtcacgacg gcatgccgac ggtcattccc  
 180  
 ttaccagg cggtggttca cgacccggct ttcactgccg ccgacggctg ctccggcgtc  
 240  
 ttaccgact ggatcgaaac cgagttcgac aacaagatcg agccatacac cgggtctctg  
 300  
 ggcgagtctg ccaattccga gcctcctcgt gaggtcgctg tcgaggtcaa cggtaaacgc  
 360

<210> 266  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 266  
 Xaa Tyr Gly Pro Gly Val Arg Met Asp Glu Gly Tyr His Ser Gly Met  
 1 5 10 15  
 Thr Val Pro Gly Ala Phe Asp Ser Leu Ile Gly Lys Leu Ile Thr  
 20 25 30  
 Gly Asp Ser Arg Glu Gln Ala Leu Ala Arg Ala Arg Ala Leu Asp  
 35 40 45  
 Glu Ile Val Ile Asp Gly Met Pro Thr Val Ile Pro Phe His Gln Ala  
 50 55 60  
 Val Val His Asp Pro Ala Phe Thr Ala Ala Asp Gly Cys Phe Gly Val  
 65 70 75 80  
 Phe Thr Asp Trp Ile Glu Thr Glu Phe Asp Asn Lys Ile Glu Pro Tyr  
 85 90 95  
 Thr Gly Ser Leu Gly Glu Ser Ala Asn Ser Glu Pro Pro Arg Glu Val  
 100 105 110  
 Val Val Glu Val Asn Gly Lys Arg  
 115 120

<210> 267  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 267  
 natcctcaac gtgtgttcag ttccacgcga aagatcatgt tcgtcatcgg atcgatgccg  
 60  
 ttaacgcac ctagtcaatc caccgatggc gaccctggca aaaaatacga ggtgacttgg  
 120

ctagatctcg ggcaccttca ccctagtcgg ccgggactcg tcaactatcac cacaactgtc  
 180  
 gatgatgacg tcatcacctc ttcccaggta aatgtcggca acctccaccg cggggatgaa  
 240  
 aaacttttcg aagctcgcga ttaccgccag attccgatgc ttgcatcacg tcatggctgg  
 300  
 acagctccat tcattggtga gaccggcgca gcccatgccca tgcaggatgc gatgggcatt  
 360  
 accatcccaa ctgcgctggc atggatacga accctgctcg ctgagttcag cagaatcacc  
 420  
 tcacacttca catttttgc atgggtaggc catcactgtg atgatgccgg c  
 471

<210> 268  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 268  
 Xaa Pro Gln Arg Val Phe Ser Ser Thr Arg Lys Ile Met Phe Val Ile  
 1 5 10 15  
 Gly Ser Met Pro Leu Thr His Pro Ser Gln Ser Thr Asp Gly Asp Pro  
 20 25 30  
 Gly Lys Lys Tyr Glu Val Thr Trp Leu Asp Leu Gly His Leu His Pro  
 35 40 45  
 Ser Arg Pro Gly Leu Val Thr Ile Thr Thr Thr Val Asp Asp Asp Val  
 50 55 60  
 Ile Thr Ser Ser Gln Val Asn Val Gly Asn Leu His Arg Gly Asp Glu  
 65 70 75 80  
 Lys Leu Phe Glu Ala Arg Asp Tyr Arg Gln Ile Pro Met Leu Ala Ser  
 85 90 95  
 Arg His Gly Trp Thr Ala Pro Phe Ile Gly Glu Thr Gly Ala Ala His  
 100 105 110  
 Ala Ile Glu Asp Ala Met Gly Ile Thr Ile Pro Thr Arg Val Ala Trp  
 115 120 125  
 Ile Arg Thr Leu Leu Ala Glu Phe Ser Arg Ile Thr Ser His Phe Thr  
 130 135 140  
 Phe Leu Ser Trp Val Gly His His Cys Asp Asp Ala Gly  
 145 150 155

<210> 269  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<400> 269  
 acgcgtgtcg tgtttccaga aaaaaccaat aaattagagt ttatggtaga agtgattgct  
 60  
 gatatgacgg taatcaatcc atttgatttc tttgtggaaa gctacgcaga agactaccca  
 120  
 tttgcttatg acaaagctct taaaaaagag ttagaacctt atttacaggt ttctgaacct  
 180  
 tgttcgttac tcgacaaatg gctgtctggg gttgatcgtg aaaaaacacc gatcaatgat  
 240

tttctagtcg caataaacag tcgccttgcc ggtgatattg gctatggat tcgcttagaa  
 300  
 ccgggcgttc agtcacctga agaaacgctc acattaatga aaggctcttg tcgcgatacc  
 360  
 tcgggggttat tggttcaaat actacgc  
 387

<210> 270  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 270  
 Thr Arg Val Val Phe Pro Glu Lys Thr Asn Lys Leu Glu Phe Met Val  
 1 5 10 15  
 Glu Val Ile Ala Asp Met Thr Val Ile Asn Pro Phe Asp Phe Phe Val  
 20 25 30  
 Glu Ser Tyr Ala Glu Asp Tyr Pro Phe Ala Tyr Asp Lys Ala Leu Lys  
 35 40 45  
 Lys Glu Leu Glu Pro Tyr Leu Gln Val Ser Glu Pro Cys Ser Leu Leu  
 50 55 60  
 Asp Lys Trp Leu Ser Gly Val Asp Arg Glu Lys Thr Pro Ile Asn Asp  
 65 70 75 80  
 Phe Leu Val Ala Ile Asn Ser Arg Leu Ala Gly Asp Ile Gly Tyr Gly  
 85 90 95  
 Ile Arg Leu Glu Pro Gly Val Gln Ser Pro Glu Glu Thr Leu Thr Leu  
 100 105 110  
 Met Lys Gly Ser Cys Arg Asp Thr Ser Gly Leu Leu Val Gln Ile Leu  
 115 120 125  
 Arg

<210> 271  
 <211> 443  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
 gccggcacca acggaaagtc ctctaccgcg cgcattggcgc attcgctttt gcgtgccttc  
 60  
 caccgcccag tgggttttgt aaccagccca cacctgcagc gcgttactga gcgcacggc  
 120  
 attgatggcc agcccattca cccgcgcgat tatgtacgca tctggcacga gattaagcca  
 180  
 tttgtgaaa tggtcgatgc cgaatcggac gtgcctatgt ctaagttcga ggtcttcgtg  
 240  
 ggccctgtcct atgctgcgtt tgccgacgcc cccggggacg tcgctgtcgt cgaagtcggc  
 300  
 cttggcggac gttgggacgc taccaatgtg gtcaacgcgg atgtctctgt cattaccccc  
 360  
 gtgggcatgg accacacgga ttacctgggg gagacgatca ctgaaatcgc aggcgagaaa  
 420  
 gctggcatta ttaagccacg cgt  
 443

<210> 272  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 272  
 Ala Gly Thr Asn Gly Lys Ser Ser Thr Ala Arg Met Val Asp Ser Leu  
 1 5 10 15  
 Leu Arg Ala Phe His Arg Arg Val Gly Leu Val Thr Ser Pro His Leu  
 20 25 30  
 Gln Arg Val Thr Glu Arg Ile Gly Ile Asp Gly Gln Pro Ile His Pro  
 35 40 45  
 Arg Asp Tyr Val Arg Ile Trp His Glu Ile Lys Pro Phe Val Glu Met  
 50 55 60  
 Val Asp Ala Glu Ser Asp Val Pro Met Ser Lys Phe Glu Val Phe Val  
 65 70 75 80  
 Gly Leu Ser Tyr Ala Ala Phe Ala Asp Ala Pro Gly Asp Val Ala Val  
 85 90 95  
 Val Glu Val Gly Leu Gly Gly Arg Trp Asp Ala Thr Asn Val Val Asn  
 100 105 110  
 Ala Asp Val Ser Val Ile Thr Pro Val Gly Met Asp His Thr Asp Tyr  
 115 120 125  
 Leu Gly Glu Thr Ile Thr Glu Ile Ala Gly Glu Lys Ala Gly Ile Ile  
 130 135 140  
 Lys Pro Arg  
 145

<210> 273  
 <211> 864  
 <212> DNA  
 <213> Homo sapiens

<400> 273  
 caaagtaaga ctgcttcaaa ttttgtgttc tgctctgcag ctcgctcccc cctgctgtcg  
 60  
 aagagaagcc aaagcccccc cccccacct caaaggctcg gaagtctggc atccctactt  
 120  
 ccgagcctgg atcccagtaa ggatcttgcc ctccctgcaa caccgagtgc cttagacagc  
 180  
 tgctgectga gaactggcct ccagccggtg tcttcattcc atggggctcc ctgctgactg  
 240  
 catttctga tctgggatga tgtttaccag cccaaaacca gtcattgtct tccaaaagct  
 300  
 tctctttgat agaattttga ggccatgcc cctcccttcc agtccacatg gaattccaga  
 360  
 atcagtcaca gcctctgatt ttttccaaga agagattgcc ttcaccattg ttaaatgtca  
 420  
 gcctgtacgg cagagacatg gtggtctgca caagcctgga caagttcttc catattgatg  
 480  
 gtgggagcaa cccttgaat ctactccttg gaaggatttt ttgctttgct tatgaaaagc  
 540  
 tgtgcttgag acttaggtac ttttctcagc tggacacact gatcccatcc catattgcat  
 600

ctttgaagag atggatatca agtacacttt ggtagctgaa ataatcatat ctttctgatg  
 660  
 tctattgtat ctcctttgag gaaaagaaca cacattttta atggagattg gctgctttca  
 720  
 ggtatgtgtg tctatcattg aaagagcatg gactcaaaca tcagccctga gttcttgagt  
 780  
 ccacccaact cccatcttct tgtggcacag gaaagctgcc ctctccctct cccaccacac  
 840  
 tcctgactaa tgcccttcac gcgt  
 864

<210> 274  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 274  
 Met Trp Thr Gly Arg Glu Val Ala Trp Pro Gln Asn Ser Ile Lys Glu  
 1 5 10 15  
 Lys Leu Leu Glu Glu His Asp Trp Phe Trp Ala Gly Lys His His Pro  
 20 25 30  
 Arg Ser Gly Asn Ala Val Ser Arg Glu Pro His Gly Met Arg Thr Pro  
 35 40 45  
 Ala Gly Gly Gln Phe Ser Gly Ser Ser Cys Leu Arg His Ser Val Leu  
 50 55 60  
 Gln Gly Gly Gln Asp Pro Tyr Trp Asp Pro Gly Ser Glu Val Gly Met  
 65 70 75 80  
 Pro Asp Phe Arg Ala Phe Glu Val Gly Gly Gly Gly Phe Gly Phe Ser  
 85 90 95  
 Ser Thr Ala Gly Gly Ser Glu Leu Gln Ser Arg Thr Gln Asn Leu Lys  
 100 105 110  
 Gln Ser Tyr Phe  
 115

<210> 275  
 <211> 911  
 <212> DNA  
 <213> Homo sapiens

<400> 275  
 naaattttaa ggaacctccc ttctataacg gagagtattt attgcagctt tcctttctgt  
 60  
 ttattttcag gaatgaaagg aattacccag ctttctgctt ttatacctac agctgaaagt  
 120  
 aattcctttc agcctcaggt gaagactttg ccactctcaa ttgatgctaa acagcagttg  
 180  
 caacggaaaa tccagaagaa gcagcaagaa cagaaactac aatccccctt gccaggagaa  
 240  
 tctgcagcaa aaaagtcaga aagtgtctaca agcaatggag tgactaatct tcctaattga  
 300  
 aatccttcaa tcctttctcc tcaacctatt ggtatcggtg tggcagctgt cctagtcccc  
 360  
 attcgggtcc agcggactag gcaattggta acttcaccga gtccaatgag ttcttctnga  
 420

cggcaaagtt cttccctca atgtacaggt ggtcactcag cacatgcagt ctgtgaaaca  
 480  
 ggcaccaaag actccccaga acgttccagc agtcctggtg ggaatcggtc tgcccggcac  
 540  
 cgttaccctc agatettacc caaaccagcg aacaccagtg cactcaccat tcgctctcca  
 600  
 actactgtcc tctttactag tagtcccatc aaaactgctg ttgtacccgc ttcacacatg  
 660  
 agttctctaa atgtggtgaa aatgacaaca atatccctca caccagcaa cagtaacacc  
 720  
 cctcttaaac attctgcctc agtcagcagt gctacaggaa caacagaaga atcaaggagt  
 780  
 gttccacaga tcaagaatgg ttctgtcgtg tcgcttcagt ctctgggtc caggagcagc  
 840  
 agtgcggggg gaacatctgc tgtggaagtc aaagtggaac ccgaaacatc atcagatgag  
 900  
 catcctgtac a  
 911

<210> 276

<211> 279

<212> PRT

<213> Homo sapiens

<400> 276

Met	Lys	Gly	Ile	Thr	Gln	Pro	Ser	Ala	Phe	Ile	Pro	Thr	Ala	Glu	Ser
1			5						10					15	
Asn	Ser	Phe	Gln	Pro	Gln	Val	Lys	Thr	Leu	Pro	Ser	Pro	Ile	Asp	Ala
		20						25					30		
Lys	Gln	Gln	Leu	Gln	Arg	Lys	Ile	Gln	Lys	Lys	Gln	Gln	Glu	Gln	Lys
	35					40					45				
Leu	Gln	Ser	Pro	Leu	Pro	Gly	Glu	Ser	Ala	Ala	Lys	Lys	Ser	Glu	Ser
	50					55					60				
Ala	Thr	Ser	Asn	Gly	Val	Thr	Asn	Leu	Pro	Asn	Gly	Asn	Pro	Ser	Ile
65				70					75					80	
Leu	Ser	Pro	Gln	Pro	Ile	Gly	Ile	Val	Val	Ala	Ala	Val	Pro	Ser	Pro
			85					90						95	
Ile	Pro	Val	Gln	Arg	Thr	Arg	Gln	Leu	Val	Thr	Ser	Pro	Ser	Pro	Met
		100					105						110		
Ser	Ser	Ser	Xaa	Arg	Gln	Ser	Ser	Pro	Gln	Cys	Thr	Gly	Gly	His	
	115				120						125				
Ser	Ala	His	Ala	Val	Cys	Glu	Thr	Gly	Thr	Lys	Asp	Ser	Pro	Glu	Arg
	130				135					140					
Ser	Ser	Ser	Pro	Gly	Gly	Asn	Arg	Ser	Ala	Arg	His	Arg	Tyr	Pro	Gln
145				150					155					160	
Ile	Leu	Pro	Lys	Pro	Ala	Asn	Thr	Ser	Ala	Leu	Thr	Ile	Arg	Ser	Pro
			165					170					175		
Thr	Thr	Val	Leu	Phe	Thr	Ser	Ser	Pro	Ile	Lys	Thr	Ala	Val	Val	Pro
		180					185						190		
Ala	Ser	His	Met	Ser	Ser	Leu	Asn	Val	Val	Lys	Met	Thr	Thr	Ile	Ser
	195					200					205				
Leu	Thr	Pro	Ser	Asn	Ser	Asn	Thr	Pro	Leu	Lys	His	Ser	Ala	Ser	Val
	210					215					220				
Ser	Ser	Ala	Thr	Gly	Thr	Glu	Glu	Ser	Arg	Ser	Val	Pro	Gln	Ile	

[illegible]

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<210> 277
<211> 652
<212> DNA
<213> Homo sapiens
```

```

<400> 277
nnaccggtgg ggactctcgc tgaggtcctt aatggccctt ctcggtgcc ggacggcacc
60
atgaaccttg ttggtgggct gcgtcaggca atggccacca ctggttactc ggaggtcaaa
120
gagttccagc gcatcgagct gacgattcgc taaccgttcc accacgcaga atgggtgttc
180
ggtgagcggg tggatagcta gccttcggcc atgagtgaag tgcccgatga attggtcgtg
240
ttgcgtggcg cgattgacaa catggacgcc gccctcatcc atctgcttgc cgaaagggtc
300
cggattactc gcgaggtagg ccgcctcaag gcggagtgcg gtttacctcc ggccgacccc
360
gcccgtagg ctgagcagat cgcgcggttg cggcagttag cggtcgagtc gaacctcgac
420
cccgaattcg cgcagaaggt catcacgttc atcgtggccg aggtggtgcg tcaccacgaa
480
gctattgctg acgattctgg cgacgactct ggagtggcgg atacggggga ggcggatgtc
540
cctggggtcg gcagctgagt tacagatcag gcatgacgt cgccctgggt caccttcgac
600
gggattccga cgacgactgt gccgggggcg acatccttga cgaccaacgc gt
652

```

```
<210> 278
<211> 115
<212> PRT
<213> Homo sapiens
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<400> 278																
Met	Ser	Glu	Val	Pro	Asp	Glu	Leu	Val	Val	Leu	Arg	Gly	Ala	Ile	Asp	
1				5					10					15		
Asn	Met	Asp	Ala	Ala	Leu	Ile	His	Leu	Leu	Ala	Glu	Arg	Phe	Arg	Ile	
			20					25					30			
Thr	Arg	Glu	Val	Gly	Arg	Leu	Lys	Ala	Glu	Cys	Gly	Leu	Pro	Pro	Ala	
		35				40						45				
Asp	Pro	Ala	Arg	Glu	Ala	Glu	Gln	Ile	Ala	Arg	Leu	Arg	Gln	Leu	Ala	
	50					55					60					
Val	Glu	Ser	Asn	Leu	Asp	Pro	Glu	Phe	Ala	Gln	Lys	Val	Ile	Thr	Phe	
65				70						75				80		
Ile	Val	Ala	Glu	Val	Val	Arg	His	His	Glu	Ala	Ile	Ala	Asp	Asp	Ser	

85 90 95  
 Gly Asp Asp Ser Gly Val Ala Asp Thr Gly Glu Ala Asp Val Pro Gly  
 100 105 110  
 Ser Gly Ser  
 115

<210> 279  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
 cgggagggtca cacaagcatt caaaccatag cagatggtaa atgttatgtt atgtgtattt  
 60  
 taccacaatc cttaaaaaga aaagaaagaa aggcatatgg aacccttagt taccttcat  
 120  
 ccagcttcaa aattgtcagt gcatgggtcaa tcttgtctta tctgcccctc acccaccctt  
 180  
 ttccagaaaag aagaccacaga ggattccaca tctgcctgga aaccacgacc agtctcgact  
 240  
 ggaagtgtgt gttaaatgttg catgtattca taaaacctct aggcatttct agtgtccctc  
 300  
 agaatttttc caaattcagg caaacacaga aattacttcc aaaaattt  
 348

<210> 280  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 280  
 Met Cys Ile Leu Pro Gln Ser Leu Lys Arg Lys Glu Arg Lys Ala Tyr  
 1 5 10 15  
 Gly Thr Pro Ser Tyr Leu Ser Ser Ser Phe Lys Ile Val Ser Ala Trp  
 20 25 30  
 Ser Ile Leu Ser Tyr Leu Pro Leu Thr His Pro Phe Pro Glu Arg Arg  
 35 40 45  
 Pro Arg Gly Phe His Ile Cys Leu Glu Thr Thr Thr Ser Leu Asp Trp  
 50 55 60  
 Lys Leu Leu Leu Met Leu His Val Phe Ile Lys Pro Leu Gly Ile Ser  
 65 70 75 80  
 Ser Val Pro Gln Asn Phe Ser Lys Phe Arg Gln Thr Gln Lys Leu Leu  
 85 90 95  
 Pro Lys Ile

<210> 281  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 281  
 agatctgcgc agatcgataa tggattaaag actcttgacg ctggagtcac cgagatgaac  
 60



aacaaggtgt tgggggcaac gaaggctgtc ggtgattcca ccaactaccgt caaccaggtg  
120  
aattctgcgt taggaantgc cgactcagcg gcagagaaga cgtcgagcgc cgttactcag  
180  
acgcgcgtgg gtgcccaggc gattaccggc gctgctcaaa atgtcatggc tgattcccaa  
240  
gctgtcaact cagccatggt tccgcttatt aataacgtga caaagaatct tcctaccttg  
300  
caaaaacagg ccaggaatct cgtgtcagtg aacggtagcc tgcagaaccc caacggtgat  
360  
tctgtcatta agattcaaca gacc  
384

<210> 282

<211> 110

<212> PRT

<213> Homo sapiens

<400> 282

Met	Asn	Asn	Lys	Val	Leu	Gly	Ala	Thr	Lys	Ala	Val	Gly	Asp	Ser	Thr
1			5						10				15		
Thr	Thr	Val	Asn	Gln	Val	Asn	Ser	Ala	Leu	Gly	Xaa	Ala	Asp	Ser	Ala
		20						25					30		
Ala	Glu	Lys	Thr	Ser	Ser	Ala	Val	Thr	Gln	Thr	Arg	Val	Gly	Ala	Gln
		35					40					45			
Ala	Ile	Thr	Gly	Ala	Ala	Gln	Asn	Val	Met	Ala	Asp	Ser	Gln	Ala	Val
	50					55					60				
Asn	Ser	Ala	Met	Val	Pro	Leu	Ile	Asn	Asn	Val	Thr	Lys	Asn	Leu	Pro
65					70					75				80	
Thr	Leu	Gln	Lys	Gln	Ala	Arg	Asn	Leu	Val	Ser	Val	Asn	Gly	Thr	Leu
			85					90						95	
Gln	Asn	Pro	Asn	Gly	Asp	Ser	Val	Ile	Lys	Ile	Gln	Gln	Thr		
			100					105					110		

<210> 283

<211> 426

<212> DNA

<213> Homo sapiens

<400> 283

cgcgtagacc aatgtgagac ggccgtcacc aagggcatgc gcgacaagtc ggttggttagc  
60  
ggaccggata ttgtgcgtcg cgagctgcgc catgtcgtga cgagcggcac gattgtcgat  
120  
ggaagcgtac tggctgacga attgagcagc tactgcatga gtatcaagga gcacgtccgc  
180  
tctgatggcc tatccgagtt tggcatctgc accctcgacg ccgccaccgc cgagttccga  
240  
tacatgacat tcgtcgacga tgccgtgctg tcacaactcg agacattgct gcgttctcta  
300  
cgcataaagg aagtcttgca tgaaaaaggg gtcattgttc cttccacgct gcgcttgatc  
360  
cgcaacgcgg tgcccaccac ctgccaaatt accatgctca agcctgatac cgaattgtcg  
420

gagaga

426

&lt;210&gt; 284

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 284

```

Arg Val Asp Gln Cys Glu Thr Ala Val Thr Lys Gly Met Arg Asp Lys
 1             5             10             15
Ser Val Gly Ser Gly Pro Asp Ile Val Arg Arg Glu Leu Arg His Val
      20             25             30
Val Thr Ser Gly Thr Ile Val Asp Gly Ser Val Leu Ala Asp Glu Leu
      35             40             45
Ser Ser Tyr Cys Met Ser Ile Lys Glu His Val Arg Ser Asp Gly Leu
      50             55             60
Ser Glu Phe Gly Ile Cys Thr Leu Asp Ala Ala Thr Ala Glu Phe Arg
      65             70             75             80
Tyr Met Thr Phe Val Asp Asp Ala Val Leu Ser Gln Leu Glu Thr Leu
      85             90             95
Leu Arg Ser Leu Arg Ile Lys Glu Val Leu His Glu Lys Gly Val Met
      100            105            110
Leu Pro Ser Thr Leu Arg Leu Ile Arg Asn Ala Val Pro Thr Thr Cys
      115            120            125
Gln Ile Thr Met Leu Lys Pro Asp Thr Glu Leu Ser Glu Arg
      130            135            140

```

&lt;210&gt; 285

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 285

```

acgcgtgcag tcccttaccg acatgctggc agatgagctc gacggcagcc gcttcaccgg
60
cgattttctca gaaatctaca aacgtcagaa ctcgatcttc ggcgatgtaa ggaataactt
120
ttacaaaaaa ggataccgca tcatcaacgt agcgaatggt gtattgcgca agatttcact
180
ggtaagcgca ggcaatgcag acaatgtgaa aggtcaggcc ctgttcttcc gcggtgtggc
240
gcatttcgaa ctcgtgcggt tgtttgcaca accctggggg tatacttcgg acaattcaca
300
ctacggcatc ccgctccgca atgaaatcgt aattggttct attcn
345

```

&lt;210&gt; 286

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 286

```

Met Leu Ala Asp Glu Leu Asp Gly Ser Arg Phe Thr Gly Asp Phe Ser

```

1	5	10	15
Glu Ile Tyr Lys Arg Gln Asn Ser Ile Phe Gly Asp Val Arg Asn Asn			
20	25	30	
Phe Tyr Lys Lys Gly Tyr Arg Ile Ile Asn Val Ala Asn Gly Val Leu			
35	40	45	
Arg Lys Ile Ser Leu Val Ser Ala Gly Asn Ala Asp Asn Val Lys Gly			
50	55	60	
Gln Ala Leu Phe Phe Arg Gly Val Ala His Phe Glu Leu Val Arg Leu			
65	70	75	80
Phe Ala Gln Pro Trp Gly Tyr Thr Ser Asp Asn Ser His Tyr Gly Ile			
85	90	95	
Pro Leu Arg Asn Glu Ile Val Ile Gly Ser Ile			
100	105		

&lt;210&gt; 287

&lt;211&gt; 1379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 287

```

nnttaactgc ccctttgcag tctttattct gggacattag cactgtcttg ttatcttgct
60
tcagttgagg gattcgggac aatagcagtg ctgatggtaa tgttgccgat ttccctgttt
120
gttttgcagg tcacggccag gggctttggg ccgctgttac agtttgccta cactgccaa
180
ctgttactca gcagagaaaa catccgcgag gtcacccgct gtgctgagtt cctgcgcatg
240
cacaacctgg aggactcctg cttcagcttc ctgcagaccc agctcctgaa cagtgaggat
300
ggcctgtttg tgtgccgga ggatgctgctg tgccagcgcc cacacgagga ctgcgagaac
360
tctgcaggag aggaggagga tgaagaggag gagacgatgg attcagagac ggccaagatg
420
gcttgcccca gggaccagat gcttcagag cccatcagct ttgaggccgc cgccatcccc
480
gtagcagaga aggaagaagc cctgctgccc gagcctgacg tgcccacaga caccaaggag
540
agctcagaaa aggacgcgtt aacgcagtac cccagatata agaaatacca gcttgcatgt
600
accaagaatg tctataatgc atcatcacac agtacctcag gttttgcaag cacattccgg
660
gaagataact ctagcaacag cctcaagccg gggcttgcca gggggcagat taaaagtgag
720
ccgcccagtg aagagaatga ggaagagagc atcacgctct gcctgtcttg agatgagcct
780
gacgccaagg acagagcggg ggatgtcgag atggaccgga aacagcccag ccctgcccct
840
acccccacgg cccagctgg ggcgcctgc ctggagagat ccaggagcgt ggctcgccc
900
tcctgcttaa ggtctctgtt cagcataacg aaaagtgtgg agctgtcttg cctgcccagt
960
acatctcagc agcactttgc caggagtcca gcctgccctt ttgacaaggg gatcactcag
1020

```

ggtgacctta aaactgacta cacccttttc acaggaatt atggacagcc ccacgtgggc  
 1080  
 cagaaggagg tgtccaactt caccatgggg tcgcccctca gggggcctgg gttggaggct  
 1140  
 ctctgtaaac aggagggaga gctggaccgg aggagcgtga tcttctcttc cagcgcttgt  
 1200  
 gaccaagtga gcacctcggg gcattcttat tctgggggtga gcagtttga caaagacctc  
 1260  
 tctgagccgg tgccaaaggg tctgtgggtg ggagccggcc agtcctctcc cagctcgcag  
 1320  
 gctactccc acggtgggct gatggccgac cacttgccag gaaggatgcg gcccaacac  
 1379

<210> 288

<211> 428

<212> PRT

<213> Homo sapiens

<400> 288

Met	Val	Met	Leu	Ala	Ile	Ser	Leu	Phe	Val	Leu	Gln	Val	Thr	Ala	Arg
1				5					10					15	
Gly	Phe	Gly	Pro	Leu	Leu	Gln	Phe	Ala	Tyr	Thr	Ala	Lys	Leu	Leu	Leu
			20					25					30		
Ser	Arg	Glu	Asn	Ile	Arg	Glu	Val	Ile	Arg	Cys	Ala	Glu	Phe	Leu	Arg
		35				40						45			
Met	His	Asn	Leu	Glu	Asp	Ser	Cys	Phe	Ser	Phe	Leu	Gln	Thr	Gln	Leu
		50				55					60				
Leu	Asn	Ser	Glu	Asp	Gly	Leu	Phe	Val	Cys	Arg	Lys	Asp	Ala	Ala	Cys
65					70					75				80	
Gln	Arg	Pro	His	Glu	Asp	Cys	Glu	Asn	Ser	Ala	Gly	Glu	Glu	Glu	Asp
			85						90					95	
Glu	Glu	Glu	Glu	Thr	Met	Asp	Ser	Glu	Thr	Ala	Lys	Met	Ala	Cys	Pro
			100					105					110		
Arg	Asp	Gln	Met	Leu	Pro	Glu	Pro	Ile	Ser	Phe	Glu	Ala	Ala	Ala	Ile
		115				120						125			
Pro	Val	Ala	Glu	Lys	Glu	Glu	Ala	Leu	Leu	Pro	Glu	Pro	Asp	Val	Pro
		130				135					140				
Thr	Asp	Thr	Lys	Glu	Ser	Ser	Glu	Lys	Asp	Ala	Leu	Thr	Gln	Tyr	Pro
145					150					155					160
Arg	Tyr	Lys	Lys	Tyr	Gln	Leu	Ala	Cys	Thr	Lys	Asn	Val	Tyr	Asn	Ala
			165						170					175	
Ser	Ser	His	Ser	Thr	Ser	Gly	Phe	Ala	Ser	Thr	Phe	Arg	Glu	Asp	Asn
		180						185					190		
Ser	Ser	Asn	Ser	Leu	Lys	Pro	Gly	Leu	Ala	Arg	Gly	Gln	Ile	Lys	Ser
		195				200						205			
Glu	Pro	Pro	Ser	Glu	Glu	Asn	Glu	Glu	Glu	Ser	Ile	Thr	Leu	Cys	Leu
		210				215						220			
Ser	Gly	Asp	Glu	Pro	Asp	Ala	Lys	Asp	Arg	Ala	Gly	Asp	Val	Glu	Met
225					230					235					240
Asp	Arg	Lys	Gln	Pro	Ser	Pro	Ala	Pro	Thr	Pro	Thr	Ala	Pro	Ala	Gly
			245						250					255	
Ala	Ala	Cys	Leu	Glu	Arg	Ser	Arg	Ser	Val	Ala	Ser	Pro	Ser	Cys	Leu
		260						265					270		
Arg	Ser	Leu	Phe	Ser	Ile	Thr	Lys	Ser	Val	Glu	Leu	Ser	Gly	Leu	Pro

275	280	285
Ser Thr Ser Gln Gln His Phe Ala Arg Ser Pro Ala Cys Pro Phe Asp		
290	295	300
Lys Gly Ile Thr Gln Gly Asp Leu Lys Thr Asp Tyr Thr Pro Phe Thr		
305	310	315
Gly Asn Tyr Gly Gln Pro His Val Gly Gln Lys Glu Val Ser Asn Phe		
325	330	335
Thr Met Gly Ser Pro Leu Arg Gly Pro Gly Leu Glu Ala Leu Cys Lys		
340	345	350
Gln Glu Gly Glu Leu Asp Arg Arg Ser Val Ile Phe Ser Ser Ser Ala		
355	360	365
Cys Asp Gln Val Ser Thr Ser Val His Ser Tyr Ser Gly Val Ser Ser		
370	375	380
Leu Asp Lys Asp Leu Ser Glu Pro Val Pro Lys Gly Leu Trp Val Gly		
385	390	395
Ala Gly Gln Ser Leu Pro Ser Ser Gln Ala Tyr Ser His Gly Gly Leu		
405	410	415
Met Ala Asp His Leu Pro Gly Arg Met Arg Pro Asn		
420	425	

&lt;210&gt; 289

&lt;211&gt; 822

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 289

```

ngcattaccg ggctgaagac ggggtgctcat gacctcaacg atataggcta ttgctagaac
60
cacgccggcc cacgccgcgc aaagcgcaga cacggcacca ggaggggtca catggctgat
120
agcaagtcga aggcgaagga cgagcgcaact gccgatgaga tcaggcggga tattgcagcg
180
accgtgctt gcctggcagc cggggtggag aacctcgtgg aggaggtgca tccggcaacc
240
ctcaagcgtg aagcatctga tcgtgcccgat gattttgtgc agggctgagtt tgatcaggtc
300
aagagccagg tcaaagatga gaaatggtgg cgcgtgcagc ggatcgcgat ggccgcagga
360
gtgctcgctg ccggcgctcg cagcattatt gtgctgcgcg cgatagtcgg tcgcgcaacg
420
ggcgtaccg ctcgtcgcaa gcttgagaag ctgcagcttt ctgaggcgaa gcggttcga
480
aaagatgcca agcagcgtag taaggaagat gaaaaggcag ccaagaaaaa tgccaagctc
540
ggcaagaaga acgctaagaa gtacggcaag ctcgataccg atgactcgtc ggtaagcaac
600
cttgccgaga aaatgctcaa acaggccgcc gtgctgcgtg cacaggcggc tgccggggcg
660
tgagaacagt gccgcctagc aaacagcggg cacagcgcaa aacaggtttg gctccgaccc
720
atggtggacc ggagccaaac tgtgttaccg catcatctga taccgccagc agccaggcct
780
gcgacaatgc gacgctggaa taccagcacc atgatgacta gt
822

```

<210> 290  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 290  
 Met Ala Asp Ser Lys Ser Lys Ala Lys Asp Glu Arg Thr Ala Asp Glu  
 1 5 10 15  
 Ile Arg Arg Asp Ile Ala Ala Thr Arg Ala Cys Leu Ala Ala Gly Val  
 20 25 30  
 Glu Asn Leu Val Glu Glu Val His Pro Ala Thr Leu Lys Arg Glu Ala  
 35 40 45  
 Ser Asp Arg Ala Arg Asp Phe Val Gln Gly Glu Phe Asp Gln Val Lys  
 50 55 60  
 Ser Gln Val Lys Asp Glu Lys Trp Trp Arg Val Gln Arg Ile Ala Met  
 65 70 75 80  
 Ala Ala Gly Val Leu Ala Ala Gly Val Val Ser Ile Ile Val Leu Arg  
 85 90 95  
 Ala Ile Val Gly Arg Ala Thr Gly Ala Thr Ala Arg Arg Lys Leu Glu  
 100 105 110  
 Lys Leu Gln Leu Ser Gln Ala Lys Arg Val Arg Lys Asp Ala Lys Gln  
 115 120 125  
 Arg Ser Lys Glu Asp Glu Lys Ala Ala Lys Lys Asn Ala Lys Leu Gly  
 130 135 140  
 Lys Lys Asn Ala Lys Lys Tyr Gly Lys Leu Asp Thr Asp Asp Ser Ser  
 145 150 155 160  
 Val Ser Asn Leu Ala Glu Lys Met Leu Lys Gln Ala Ala Val Leu Arg  
 165 170 175  
 Ala Gln Ala Ala Ala Gly Ala  
 180

<210> 291  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 291  
 ctccacgccg acaagactta cgacgggcgt cgctgccggg ctgagtgcgc ggccccgtcc  
 60  
 atcacccccc gcacgctcg ccgcggcgtg gagaccagcg agcgcttggg ccggtatcgc  
 120  
 tgggtcgtcg agcgcacctt cgctggctc aaccgcttgc ggcgctcgc catccgctac  
 180  
 gagcggcgtg ctgacatcca cgaagccttc gtgacccctg gctgogccct catctgctc  
 240  
 aaccagatca gacggttttg ttaggtgctg taaagggaga atggctgcag ctgggctatc  
 300  
 tgctccctcg tcaaccagaa acaggctgct catcctcact caacaacgcg t  
 351

<210> 292  
 <211> 87  
 <212> PRT

<213> Homo sapiens

<400> 292

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Leu His Ala Asp Lys Thr Tyr Asp Gly Arg Arg Cys Arg Ala Glu Cys
 1             5             10             15
Arg Ala Arg Ser Ile Thr Pro Arg Ile Ala Arg Arg Gly Val Glu Thr
      20             25             30
Ser Glu Arg Leu Gly Arg Tyr Arg Trp Val Val Glu Arg Thr Phe Ala
      35             40             45
Trp Leu Asn Arg Phe Arg Arg Leu Ala Ile Arg Tyr Glu Arg Arg Ala
      50             55             60
Asp Ile His Glu Ala Phe Val Ile Leu Gly Cys Ala Leu Ile Cys Leu
65             70             75             80
Asn Gln Ile Arg Arg Phe Cys
      85

```

<210> 293

<211> 716

<212> DNA

<213> Homo sapiens

<400> 293

```

nncttcacca caccggccat caacgcacct cctcgtgata acttgacctt ctgccgaacc
60
ggttaatcag tttagtggcg aggcattgaca cgttgacgag tcagctgtgg tacatgtgcg
120
gaacactcac aatgccacgg cggcatgttg ctgtcgggtca cgacccttat ggtgatcgct
180
gtgagaaccc gaacggcaga tgcgattctg gcggcactgg atctgaacag gtttaagggt
240
gcgaagactt tcgatgttcc agtgtgcgtc atagctgggtg ccgggacagg taaaactcgt
300
gctgtcactc atcgattgc ctacggtgca gcgacaggca agcttgatcc gcgtcgtacc
360
ctcgcggtca cttttacgac taaggcagct ggcacgatga gaggtcgact cgccgatctg
420
gggggttggt gtgtgcaggc tcgcactatt cattctgcgg cggttcggga gatcaagttt
480
ttctggcctc gtgcatataa ctgtgagttg ccaccggtga gtgattctcg tttctcgatg
540
gtggcggaga cgacccatcg cattggtctg ggcaatgaca aggcgctgct gcgcgacttg
600
tccgcccaga tctcgtgggc gaaggtctca aatgtgccga ctgatcaata cgcattccctg
660
gctagggcgg aaggtcgggt ggtggcggga gtttcggcaa ctgacgtagg acgcgt
716

```

<210> 294

<211> 190

<212> PRT

<213> Homo sapiens

<400> 294

```

Met Leu Leu Ser Val Thr Thr Leu Met Val Ile Ala Val Arg Thr Arg

```

```

      1           5           10           15
Thr Ala Asp Ala Ile Leu Ala Ala Leu Asp Leu Asn Arg Phe Lys Val
      20           25           30
Ala Lys Thr Phe Asp Val Pro Val Cys Val Ile Ala Gly Ala Gly Thr
      35           40           45
Gly Lys Thr Arg Ala Val Thr His Arg Ile Ala Tyr Gly Ala Ala Thr
      50           55           60
Gly Lys Leu Asp Pro Arg Arg Thr Leu Ala Val Thr Phe Thr Thr Lys
      65           70           75           80
Ala Ala Gly Thr Met Arg Gly Arg Leu Ala Asp Leu Gly Val Val Gly
      85           90           95
Val Gln Ala Arg Thr Ile His Ser Ala Ala Leu Arg Gln Ile Lys Phe
      100          105          110
Phe Trp Pro Arg Ala Tyr Asn Cys Glu Leu Pro Pro Val Ser Asp Ser
      115          120          125
Arg Phe Ser Met Val Ala Glu Thr Thr His Arg Ile Gly Leu Gly Asn
      130          135          140
Asp Lys Ala Leu Leu Arg Asp Leu Ser Ala Glu Ile Ser Trp Ala Lys
      145          150          155          160
Val Ser Asn Val Pro Thr Asp Gln Tyr Ala Ser Leu Ala Arg Ala Glu
      165          170          175
Gly Arg Val Val Ala Gly Val Ser Ala Thr Asp Val Gly Arg
      180          185          190

```

<210> 295  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

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<400> 295
ttcatatcag gcagtaccgc agtccatgcg atcaacaacg tcagcgatc tttcacccat
60
tctggagtgc accttctcat gggagaaagc ggatcaggaa aaagcaccct catcaatctc
120
ctagctggtc tggatacccc agattcgggg tccgtctacg cagaaggcgt caccgtatct
180
gatcagagcg aggcgagcag agcccaattt cgattacgcc acatcgccgt catcttccag
240
gacgacaacc tcatcgctga gttgaccaat accgagaata ttgcgctacc cctgtgggcg
300
cagggcacat cgaagtccga tgccactgaa atcgcccacg aagccatgcg aaaactagga
360
atcgagtcac tgggcagacg ctaccccggc gaggtctcgg gtggccaacg gcaacgc
417

```

<210> 296  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

```

<400> 296
Phe Ile Ser Gly Ser Thr Arg Val His Ala Ile Asn Asn Val Ser Val
1           5           10           15
Ser Phe Thr His Ser Gly Val His Leu Leu Met Gly Glu Ser Gly Ser

```



```

      20      25      30
Gly Lys Ser Thr Leu Ile Asn Leu Leu Ala Gly Leu Asp Thr Pro Asp
      35      40      45
Ser Gly Ser Val Tyr Ala Glu Gly Val Thr Val Ser Asp Gln Ser Glu
      50      55      60
Ala Ser Arg Ala Gln Phe Arg Leu Arg His Ile Ala Val Ile Phe Gln
      65      70      75      80
Asp Asp Asn Leu Ile Ala Glu Leu Thr Asn Thr Glu Asn Ile Ala Leu
      85      90      95
Pro Leu Trp Ala Gln Gly Thr Ser Lys Ser Asp Ala Thr Glu Ile Ala
      100      105      110
His Glu Ala Met Arg Lys Leu Gly Ile Glu Ser Leu Gly Arg Arg Tyr
      115      120      125
Pro Gly Glu Val Ser Gly Gly Gln Arg Gln Arg
      130      135

```

&lt;210&gt; 297

&lt;211&gt; 378

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 297

```

tacaccatcg gtgaccagat tgtcgaagct ctgcaggtgc actcgaagat gtccgacaag
60
gacgcttggg cgcgtgccat cgagctgctc gacttggtgg ggattccgaa tcccagagtg
120
cgtgccaaag cttttccgca cgagttttcc ggtggcatga ggcaacgagt cgtcatcgcc
180
atggccatcg cgaacgaccc tgacctcatc atcgccgacg agccgacgac ggccctcgac
240
gtgaccatcc aggccagat tctcgatttg ctgcgcgtag cccagcgtga aaccatgcg
300
ggcgctggtta tgatcaccca cgacctcggt gtggtagctg gtctggctga cagggttgcc
360
gtgatgtatg ccggacgc
378

```

&lt;210&gt; 298

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 298

```

Tyr Thr Ile Gly Asp Gln Ile Val Glu Ala Leu Gln Val His Ser Lys
1      5      10      15
Met Ser Asp Lys Asp Ala Trp Ala Arg Ala Ile Glu Leu Leu Asp Leu
20      25      30
Val Gly Ile Pro Asn Pro Glu Val Arg Ala Lys Ala Phe Pro His Glu
35      40      45
Phe Ser Gly Gly Met Arg Gln Arg Val Val Ile Ala Met Ala Ile Ala
50      55      60
Asn Asp Pro Asp Leu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp
65      70      75      80
Val Thr Ile Gln Ala Gln Ile Leu Asp Leu Leu Arg Val Ala Gln Arg

```

```

      85              90              95
Glu Thr His Ala Gly Val Val Met Ile Thr His Asp Leu Gly Val Val
      100              105              110
Ala Gly Leu Ala Asp Arg Val Ala Val Met Tyr Ala Gly Arg
      115              120              125

```

&lt;210&gt; 299

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 299

```

gtgcacgggtt tcgttggcat gcgcaatgac cgggagaact tgcgttttga tccgagactt
60
ccagcccaat ggacgtcgat caaacaccac atgctcattg gcgactctca catgctcgtt
120
ttcctggaac gtgacgccat tacgttccag attctgtcgg gccatgaccg cgacgtgaca
180
gtgcgcgggtg agctctacca cattgggggtt gagccggtga gggtgccgtt gtccgatcag
240
gggcccgttgc gtcttagcct gcgcgttacc catccgatct cgggggttgcg tcgagctgac
300
ggttctctta tcaactgcaga agttcccggc agcattgctg agacgattgg gtcttctccg
360
atctcgac
368

```

&lt;210&gt; 300

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 300

```

Val His Gly Phe Val Gly Met Arg Asn Asp Arg Glu Asn Leu Arg Phe
  1              5              10              15
Asp Pro Arg Leu Pro Ala Gln Trp Thr Ser Ile Lys His His Met Leu
      20              25              30
Ile Gly Asp Ser His Met Leu Val Phe Leu Glu Arg Asp Ala Ile Thr
      35              40              45
Phe Gln Ile Leu Ser Gly His Asp Arg Asp Val Thr Val Arg Gly Glu
      50              55              60
Leu Tyr His Ile Gly Val Glu Pro Val Arg Val Pro Leu Ser Asp Gln
      65              70              75              80
Gly Pro Leu Arg Pro Ser Leu Arg Val Thr His Pro Ile Ser Gly Leu
      85              90              95
Arg Arg Ala Asp Gly Ser Leu Ile Thr Ala Glu Val Pro Gly Ser Ile
      100              105              110
Ala Glu Thr Ile Gly Ser Ser Pro Ile Ser
      115              120

```

&lt;210&gt; 301

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 301  
 ggccggggtta ttgcccgccc gtttgtcggg gaaacccggc agaccttcga gcgcaccggc  
 60  
 aaccggcgcg actattccgt accgccgccc gaaccgacct tgcctcgacag gcttacggac  
 120  
 gcggggccgga cggatgatcg aatcggcaag attggtgata tctacgcgca caaaggcgtg  
 180  
 tctcaggtgc gtaaggcaat ggcaatattg gccttggtcg atgaaacact cattgccatg  
 240  
 gacgacgcgc aggacggcga tctggtcttc accaacttcg tggatttcga catgctctac  
 300  
 gggcatcgca gggatgtgcc cggctatgcc gccgcgctcg aggctttcga ccggaggctg  
 360  
 ccggaagcca tggcgaaatt gcggacgggc gatcttctga tcttgacagc cgatcatggc  
 420  
 tgcgaccgga cctcaaggg aaccgaccac acgcgt  
 456

<210> 302  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 302  
 Gly Arg Val Ile Ala Arg Pro Phe Val Gly Glu Thr Arg Gln Thr Phe  
 1 5 10 15  
 Glu Arg Thr Gly Asn Arg Arg Asp Tyr Ser Val Pro Pro Pro Glu Pro  
 20 25 30  
 Thr Leu Leu Asp Arg Leu Thr Asp Ala Gly Arg Thr Val Ile Ala Ile  
 35 40 45  
 Gly Lys Ile Gly Asp Ile Tyr Ala His Lys Gly Val Ser Gln Val Arg  
 50 55 60  
 Lys Ala Met Ala Ile Leu Ala Leu Phe Asp Glu Thr Leu Ile Ala Met  
 65 70 75 80  
 Asp Asp Ala Gln Asp Gly Asp Leu Val Phe Thr Asn Phe Val Asp Phe  
 85 90 95  
 Asp Met Leu Tyr Gly His Arg Arg Asp Val Pro Gly Tyr Ala Ala Ala  
 100 105 110  
 Leu Glu Ala Phe Asp Arg Arg Leu Pro Glu Ala Met Ala Lys Leu Arg  
 115 120 125  
 Thr Gly Asp Leu Leu Ile Leu Thr Ala Asp His Gly Cys Asp Pro Thr  
 130 135 140  
 Leu Lys Gly Thr Asp His Thr Arg  
 145 150

<210> 303  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 303  
 nncgtgggca tcgaggagtt cctcgacatg aagtatcaçg cgacgccgat tcacgtcgcg  
 60

tgacagcggg tttccggaac acatcagcgt tcagacagga gcgaggagac catgtacctg  
 120  
 ggtgctcagc tgttcagtga cagcgagtac gagcagcgcc tgagacgtgt ccgtagagctc  
 180  
 atggaccgtc aggggtctgtc ggcgatcatc gtcaccgatc cggccaacat cttctatctg  
 240  
 atcggttaca acgcctggtc gttctacacc ccgcagatgc tgttcgtgcc gatcgacgga  
 300  
 gagatgggtcc tctacgctcg cgagatggat cgcattggcg acatcngcac gacgtcgttg  
 360  
 cccgcggatc agatcgtcgg ttaccgggag agttatgtgc ac  
 402

<210> 304  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 304  
 Met Tyr Leu Gly Ala Gln Leu Phe Ser Asp Ser Glu Tyr Glu Gln Arg  
 1 5 10 15  
 Leu Arg Arg Val Arg Glu Leu Met Asp Arg Gln Gly Leu Ser Ala Ile  
 20 25 30  
 Ile Val Thr Asp Pro Ala Asn Ile Phe Tyr Leu Ile Gly Tyr Asn Ala  
 35 40 45  
 Trp Ser Phe Tyr Thr Pro Gln Met Leu Phe Val Pro Ile Asp Gly Glu  
 50 55 60  
 Met Val Leu Tyr Ala Arg Glu Met Asp Arg Met Ala His Ile Xaa Thr  
 65 70 75 80  
 Thr Ser Leu Pro Ala Asp Gln Ile Val Gly Tyr Pro Glu Ser Tyr Val  
 85 90 95  
 His

<210> 305  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 305  
 nnacgcgtcg gttccgcac gagcgaccgg atcgcatcga cgagcacgct gcaccagtgc  
 60  
 gtgtcgtcct ggcaatatg ggcgatcagc cggtagagtt cgggacgtc gctcacctcg  
 120  
 gccgccattt cggtatgcgac acgcgcgcct gcgcgctcgg cctccagcaa ctgctcgagc  
 180  
 gtcgccacca gcgcggcgcg atcttcatgc ggagtcagat cggcgcgggc gtcaggcccg  
 240  
 tcgccatgcg tcggaatoga catgcagcac cctcctgccg ggatcgatgg cgtaatacgt  
 300  
 gcgacggtac acggcgcggtg ttgcacgaac gtgcaaatca gcgcgtgcct cgtgccatat  
 360  
 acgtcacatc atatg  
 375

<210> 306  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 306  
 Xaa Arg Val Gly Ser Ala Ser Ser Asp Arg Ile Ala Ser Thr Ser Thr  
 1 5 10 15  
 Leu His Gln Cys Val Ser Ser Trp Arg Ile Trp Ala Ile Ser Arg Tyr  
 20 25 30  
 Ser Ser Gly Ser Ser Leu Thr Ser Ala Ala Ile Ser Asp Ala Thr Arg  
 35 40 45  
 Ala Pro Ala Arg Ser Ala Ser Ser Asn Ser Ser Val Ala Thr Ser  
 50 55 60  
 Ala Ala Arg Ser Ser Cys Gly Val Arg Ser Ala Arg Ala Ser Gly Pro  
 65 70 75 80  
 Ser Pro Cys Val Gly Ile Asp Met Gln His Pro Pro Ala Arg Ile Asp  
 85 90 95  
 Gly Val Ile Arg Ala Thr Val His Gly Ala Cys Cys Thr Asn Val Gln  
 100 105 110  
 Ile Ser Ala Cys Leu Val Pro Tyr Thr Ser His His Met  
 115 120 125

<210> 307  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 307  
 actagttctg gccgctcccc tggggctttg ggtaacaatt gtcagcccca cccatcctag  
 60  
 ggtaggaag gctattctct ttggccactc tcatacctaag acctatttgg agaacctctg  
 120  
 gggtttgagt ctttttttca gcagaatgag gcttgatccc gcattatagc acctcgcaca  
 180  
 ttgatgtct cttcttctca ccactcacc ccacctggg ggttggggca aaaaagtggc  
 240  
 tcaaagctgc gggtcagagt tccttgtaaa caaggtctct ccctcactgt cctcaccctg  
 300  
 ctccagcaga gggagcagcg gaaggaccac tctgctgcag ccatgcttgt ttctaaccga  
 360  
 gcagaactgg acataatggg aacagggtct gaagacaatc aatccagggc tgcagtgggt  
 420  
 gctgagtctg gggaaagctc cacctggagg ggcagctggg cagtggcagc tcccttgaa  
 480  
 tggctcagcc tctggacatc accccacca accagagccc tggctcttgc tggatgtcca  
 540  
 cagatgagtg cctgggattg gtctcagcca ctatggggg gatgtgcagg gagaggtgat  
 600  
 gaggagtgga gcaggactgt ctatgtgcct ctgtcctcat cctgaggctt gggcttgaaa  
 660  
 ttggtgctgc agcactggca cgcgt  
 685

<210> 308  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 308  
 Met Leu Val Ser Asn Pro Ala Glu Leu Asp Ile Met Gly Thr Gly Ser  
 1 5 10 15  
 Glu Asp Asn Gln Ser Arg Ala Ala Val Gly Ala Glu Ser Gly Glu Ala  
 20 25 30  
 Ser Thr Trp Arg Gly Ser Trp Ala Val Ala Ala Pro Leu Glu Trp Leu  
 35 40 45  
 Ser Leu Trp Thr Ser Pro His Pro Thr Arg Ala Leu Ala Leu Ala Gly  
 50 55 60  
 Cys Pro Gln Met Ser Ala Trp Asp Trp Ser Gln Pro Leu Trp Gly Gly  
 65 70 75 80  
 Cys Ala Gly Arg Gly Asp Glu Gly Val Ser Arg Thr Val Tyr Val Pro  
 85 90 95  
 Leu Ser Ser Ser  
 100

<210> 309  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 309  
 caggctcgta ctattcgat ccctgtgcat atggctgagg tcatcaataa gctggctcgc  
 60  
 gtccagcgtc agatgtcca ggacctaggc cgtgagccca ccccggaaga gcttgccaac  
 120  
 gaactcgata tgaccgcaga gaaggtcatt gaggtgcaga aatacggtcg cgagccgac  
 180  
 tcgctgcata cccactggg tgaggatggc gattctgagt tcggtgacct tattgaggat  
 240  
 tccgaggcca tcgtgccagc agacgccgtc aacttcaccc tggtgcagga gcagctgcat  
 300  
 gatgtcctcg atacctgtc cgagcgagag gccggtgtcg tgctgatgcg attcggcttg  
 360  
 accgacggac agcccaagac cctggatgag atcggcaaag tctacggtgt tactcgggag  
 420  
 cgcatccgcc ag  
 432

<210> 310  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 310  
 Gln Ala Arg Thr Ile Arg Ile Pro Val His Met Val Glu Val Ile Asn  
 1 5 10 15  
 Lys Leu Ala Arg Val Gln Arg Gln Met Leu Gln Asp Leu Gly Arg Glu

```

      20      25      30
Pro Thr Pro Glu Glu Leu Ala Asn Glu Leu Asp Met Thr Ala Glu Lys
      35      40      45
Val Ile Glu Val Gln Lys Tyr Gly Arg Glu Pro Ile Ser Leu His Thr
      50      55      60
Pro Leu Gly Glu Asp Gly Asp Ser Glu Phe Gly Asp Leu Ile Glu Asp
65      70      75      80
Ser Glu Ala Ile Val Pro Ala Asp Ala Val Asn Phe Thr Leu Leu Gln
      85      90      95
Glu Gln Leu His Asp Val Leu Asp Thr Leu Ser Glu Arg Glu Ala Gly
      100      105      110
Val Val Ser Met Arg Phe Gly Leu Thr Asp Gly Gln Pro Lys Thr Leu
      115      120      125
Asp Glu Ile Gly Lys Val Tyr Gly Val Thr Arg Glu Arg Ile Arg Gln
      130      135      140

```

<210> 311  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

```

<400> 311
acgcgtatcg aaaatatccc tccattatt accgctcgcc ctgaactgat ggctcatgaa
60
ctgacgccag aatctcttga tgcgagcctg gagtgggccc atgtgggtgt cattggctct
120
ggactgggac aacaagcgtg gggcaaaaaa gcgctacaaa aggtcgagaa ttgtcgtaaa
180
ccgatgctgt gggatgccga cgcgcttaac cttctggcaa tcaatcctga taaacgtcac
240
aatcgcatcc tgacgccaca ccccggcgag gccgcgcggc tgcttagctg cagcgtcgca
300
gaaattgaaa acgatcgctt acttntctgc gcacgtctgg taaaacggta acccgagt
358

```

<210> 312  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 312
Thr Arg Ile Glu Asn Ile Pro Pro Ile Ile Thr Ala Arg Pro Glu Leu
1      5      10      15
Met Ala His Glu Leu Thr Pro Glu Ser Leu Asp Ala Ser Leu Glu Trp
      20      25      30
Ala Asp Val Val Val Ile Gly Pro Gly Leu Gly Gln Gln Ala Trp Gly
      35      40      45
Lys Lys Ala Leu Gln Lys Val Glu Asn Cys Arg Lys Pro Met Leu Trp
50      55      60
Asp Ala Asp Ala Leu Asn Leu Leu Ala Ile Asn Pro Asp Lys Arg His
65      70      75      80
Asn Arg Ile Leu Thr Pro His Pro Gly Glu Ala Ala Arg Leu Leu Ser
      85      90      95
Cys Ser Val Ala Glu Ile Glu Asn Asp Arg Leu Leu Xaa Cys Ala Arg

```

100 105 110  
 Leu Val Lys Arg  
 115

<210> 313  
 <211> 347  
 <212> DNA  
 <213> Homo sapiens

<400> 313  
 ncaactgaaa gcattgagat gagcgacgtg ctgtccccct tccacccac caaggccaac  
 60  
 acccctggtg gcgaaccgcg caccatccgc acctcgaacg cgcacatcat tgccgtcacc  
 120  
 agtggcaaag gcgcggtggg caagaccttt gtctccgcca acctggccgc cgcgctgacc  
 180  
 cgctggggac tgcgctgtgt ggtactggac gccgacctgg gcctggccaa cttggacgtg  
 240  
 gtgctgaacc tctaccccaa ggtgacgctg cacgatgtgt tcaccggcaa ggcctcgtctg  
 300  
 caagacgcgg tggtcacggc ccccgccggc ttccatgtgc tgctagc  
 347

<210> 314  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 314  
 Xaa Thr Glu Ser Ile Glu Met Ser Asp Val Leu Ser Pro Phe His Pro  
 1 5 10 15  
 Thr Lys Ala Asn Thr Pro Gly Gly Glu Pro Arg Thr Ile Arg Thr Ser  
 20 25 30  
 Asn Ala His Ile Ile Ala Val Thr Ser Gly Lys Gly Gly Val Gly Lys  
 35 40 45  
 Thr Phe Val Ser Ala Asn Leu Ala Ala Leu Thr Arg Leu Gly Leu  
 50 55 60  
 Arg Val Leu Val Leu Asp Ala Asp Leu Gly Leu Ala Asn Leu Asp Val  
 65 70 75 80  
 Val Leu Asn Leu Tyr Pro Lys Val Thr Leu His Asp Val Phe Thr Gly  
 85 90 95  
 Lys Ala Ser Leu Gln Asp Ala Val Val Thr Ala Pro Gly Gly Phe His  
 100 105 110  
 Val Leu Leu  
 115

<210> 315  
 <211> 544  
 <212> DNA  
 <213> Homo sapiens

<400> 315  
 nnacgcgttc gtcaacagga aaacaacaac ggcttctcgc tggagggaac catgcttgcc  
 60



gaagatatct acgcgatcat gctgttttca tcgctcatcc tggctgtccc ggggccatcc  
 120  
 aacaccttgc tgctcagcgc ccgtttccat ttcggctcgc tgcgggcggc gcccttcac  
 180  
 ctgcttgagg cgttgggcta ctcgctatcc atttcggcat ggggctgggt attggcgcgc  
 240  
 ctgtccgaga gcaatccatg gatcatcagt ctgaccaagg cactctgcgc gctatatgtg  
 300  
 gcgcttctgg cggatgaagac ctggaatgcc ntcgatccgc agtgcggggc cggtaacttc  
 360  
 cgccatgggc ccttgcccct gttcgtggca accctgtcga acccgaaggc gctgatcttc  
 420  
 gccagcgtga tctttcccg caaggcggtc ctcgacttct ggaacaacta cacgatctcg  
 480  
 ctgctggcct tcctggttgt gctggcgccc atcgggatgc tttgggtcgg gctgggggcc  
 540  
 ggta  
 544

<210> 316  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 316  
 Ile Tyr Ala Ile Met Leu Phe Ser Ser Leu Ile Leu Val Val Pro Gly  
 1 5 10 15  
 Pro Ser Asn Thr Leu Leu Leu Ser Ala Arg Phe His Phe Gly Ser Leu  
 20 25 30  
 Arg Ala Ala Pro Phe Ile Leu Leu Glu Ala Leu Gly Tyr Ser Leu Ser  
 35 40 45  
 Ile Ser Ala Trp Gly Trp Val Leu Ala Arg Leu Ser Glu Ser Asn Pro  
 50 55 60  
 Trp Ile Ile Ser Leu Thr Lys Ala Leu Cys Ala Leu Tyr Val Ala Leu  
 65 70 75 80  
 Leu Ala Val Lys Thr Trp Asn Ala Xaa Asp Pro Gln Cys Gly Ala Gly  
 85 90 95  
 Asn Phe Arg His Gly Pro Leu Pro Leu Phe Val Ala Thr Leu Ser Asn  
 100 105 110  
 Pro Lys Ala Leu Ile Phe Ala Ser Val Ile Phe Pro Gly Lys Ala Phe  
 115 120 125  
 Leu Asp Phe Trp Asn Asn Tyr Thr Ile Ser Leu Leu Ala Phe Leu Val  
 130 135 140  
 Val Leu Ala Pro Ile Gly Met Leu Trp Val Gly Leu Gly Ala Gly  
 145 150 155

<210> 317  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

<400> 317  
 nggtcagcct ctcgcccagg caattctctt aagatacatg agctgctatg agtaccaaag  
 60

ccagagggtt gtccactgag agaagcacat tggaaagggg ggcgtgggccc tgggactgtg  
 120  
 tggcacttta tgcacggggg gggcctaagg gggnggtcc accaaccatg cactgngggg  
 180  
 ggggtgtggg taacatgccg tgcattttgg ggggtgtgcca tgagtggcac accatggggg  
 240  
 tggcatgtgg ggcattgatg catgtggtgt tggcgcagca aactcagctc ttacctggct  
 300  
 ggggccagcc tctaaaactt ctcacattgg gctcccttct gac  
 343

<210> 318  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 318  
 Met Ser Thr Lys Ala Arg Gly Leu Ser Thr Glu Arg Ser Thr Leu Glu  
 1 5 10 15  
 Arg Gly Ala Trp Ala Trp Asp Cys Val Ala Leu Tyr Ala Arg Gly Gly  
 20 25 30  
 Pro Lys Gly Gly Gly Pro Pro Thr Met His Xaa Gly Trp Gly Val Gly  
 35 40 45  
 Asn Met Pro Cys Ile Leu Gly Val Cys His Glu Trp His Thr Met Gly  
 50 55 60  
 Val Ala Cys Gly Ala Cys Met His Val Val Leu Ala Gln Gln Thr Gln  
 65 70 75 80  
 Leu Leu Pro Gly Trp Gly Gln Pro Leu Lys Leu Leu Thr Leu Gly Ser  
 85 90 95  
 Leu Leu

<210> 319  
 <211> 429  
 <212> DNA  
 <213> Homo sapiens

<400> 319  
 gaattctcga tgtacccct cccggcagtc ctattctcga gctgagcggg cacagtggcc  
 60  
 ccgttaacag tgtggcttgg ggtccacca gccagagcac gttgcgaaat ggacctagta  
 120  
 agggcatgat atgtacagga ggcgacgatg ctcaagtgcct cgtatatgat ctgactagct  
 180  
 caactcttcg aacagcatct gctcaaggac ggcgctctcg aaacagtcca tataaacaaa  
 240  
 gccattcacc ggaatagac ggatggcgtg tcggcgcaga agtgccggtg ctcgcttata  
 300  
 cggccccgtc tatggtcaac aatgctagct ggctcggcat gcctgcgcca tcaaacgcga  
 360  
 catcgctaca gagcaaacac cgcagccttt accgcagctt actcagttag tggactgagt  
 420  
 atacgtccn  
 429

<210> 320  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 320  
 Met Ile Cys Thr Gly Gly Asp Asp Ala Gln Cys Leu Val Tyr Asp Leu  
 1 5 10 15  
 Thr Ser Ser Thr Leu Arg Thr Ala Ser Ala Gln Gly Arg Arg Ser Arg  
 20 25 30  
 Asn Ser Pro Tyr Lys Gln Ser His Ser Pro Gly Ile Asp Gly Trp Arg  
 35 40 45  
 Val Gly Ala Glu Val Pro Val Leu Ala Tyr Thr Ala Pro Ser Met Val  
 50 55 60  
 Asn Asn Ala Ser Trp Leu Gly Met Pro Ala Pro Ser Lys Arg Thr Ser  
 65 70 75 80  
 Leu Gln Ser Lys His Arg Ser Leu Tyr Arg Ser Leu Leu Ser Glu Trp  
 85 90 95  
 Thr Glu Tyr Thr Ser  
 100

<210> 321  
 <211> 530  
 <212> DNA  
 <213> Homo sapiens

<400> 321  
 ngtgcacgac gtgctcgcca agtccctcgg gtcctccta gcatcaacg tgggtcacgc  
 60  
 caccgtcgat gcgttgacgc agctcgagga gcccgaagag gtgcgccgtc gccgcggcaa  
 120  
 gtccgttgag gagatcgccc cagcagccat gctgcgtgcg cgcaaggagg ccgacgaggc  
 180  
 cgccgctgct gcccgcatgg aggaaaaggc ggggggttaac tgatgagcaa gctgaagatc  
 240  
 acccagatca agtctggcat cgctaccaag ccaaatacgc gtgagaccct gcgcagcctc  
 300  
 ggactgaagc gtattggtga cacggtcac aaggaggacc gcccgaggtt ccgcggcacg  
 360  
 gtccggaccg ttcgtcacct cgtcaccatg gaagagggtg actgacatgg ctattgagct  
 420  
 ccatgacctc aagcccgctc ctggtgcca caaggccaag acccgcggtg gtcgtggtga  
 480  
 ggggtccaag ggtaagaccg ctggtcgagg taccaagggc accggtgcac  
 530

<210> 322  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 322  
 Met Ser Lys Leu Lys Ile Thr Gln Ile Lys Ser Gly Ile Ala Thr Lys

```

      1           5           10           15
Pro Asn His Arg Glu Thr Leu Arg Ser Leu Gly Leu Lys Arg Ile Gly
      20           25           30
Asp Thr Val Ile Lys Glu Asp Arg Pro Glu Phe Arg Gly Met Val Arg
      35           40           45
Thr Val Arg His Leu Val Thr Met Glu Glu Val Asp
      50           55           60

```

<210> 323  
 <211> 468  
 <212> DNA  
 <213> Homo sapiens

```

<400> 323
ntccggaccc gctgtggcca cgtattctgc cgttcctgta ttgctaccag tctaaagaac
60
aacaagtgga cctgtcctta ttgccgggca tatcttcctt cagaaggagt tccagcaact
120
gatgtagcca aaagaatgaa atcagagtat aagaactgcg ctgagtgtga caccctgggt
180
tgcctcagtg aaatgagggc acatattcgg acttgtcaga agtacataga taagtatgga
240
ccactacaag aacttgagga gacagcagca aggtgtgtat gtcccttttg tcagagggaa
300
ctgtatgaag acagcttgct ggatcattgt attactcatc acagatcgga acggaggcct
360
gtgttctgtc cactttgcca ttttaataccc gatgagaatc caagcagctt cagtggcagt
420
ttaataagac atctgcaagt tagtcacact ttggtttatg atgatttc
468

```

<210> 324  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

```

<400> 324
Xaa Arg Thr Arg Cys Gly His Val Phe Cys Arg Ser Cys Ile Ala Thr
1           5           10           15
Ser Leu Lys Asn Asn Lys Trp Thr Cys Pro Tyr Cys Arg Ala Tyr Leu
      20           25           30
Pro Ser Glu Gly Val Pro Ala Thr Asp Val Ala Lys Arg Met Lys Ser
      35           40           45
Glu Tyr Lys Asn Cys Ala Glu Cys Asp Thr Leu Val Cys Leu Ser Glu
      50           55           60
Met Arg Ala His Ile Arg Thr Cys Gln Lys Tyr Ile Asp Lys Tyr Gly
65           70           75           80
Pro Leu Gln Glu Leu Glu Glu Thr Ala Ala Arg Cys Val Cys Pro Phe
      85           90           95
Cys Gln Arg Glu Leu Tyr Glu Asp Ser Leu Leu Asp His Cys Ile Thr
      100          105          110
His His Arg Ser Glu Arg Arg Pro Val Phe Cys Pro Leu Cys His Leu
      115          120          125
Ile Pro Asp Glu Asn Pro Ser Ser Phe Ser Gly Ser Leu Ile Arg His

```

130 135 140  
 Leu Gln Val Ser His Thr Leu Val Tyr Asp Asp Phe  
 145 150 155

<210> 325  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 325  
 acgcgtgaag ggaggacgag gaagtaacgg gaagcacaag gccgctgctg gggagatggc  
 60  
 actggagccc cctaggaagc atctcacagg ctgtggccct tggcacgggg atctggggcc  
 120  
 aggtcgagcg caggtctggg tatcatgcca gtgcgggctc gctggggcgg gaaagagttt  
 180  
 ggagctctgc tcccaggga tcccccactcc cgcagatgac ttgcccgaga gagttctgct  
 240  
 ggtggatttt gatggaaatt ctatttgatc gcacccaactt ggttactgt gtgcttccgg  
 300  
 gtccccaggt tttaggtgct tcatgccctg ctgggaacga gacacgtcc tgcctcagt  
 360  
 gaatcttcag tcta  
 374

<210> 326  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 326  
 Met Lys His Leu Lys Pro Gly Asp Pro Glu Ala His Ser Glu Pro Ser  
 1 5 10 15  
 Gly Cys Asp Gln Ile Glu Phe Pro Ser Lys Ser Thr Ser Arg Thr Leu  
 20 25 30  
 Ser Gly Lys Ser Ser Ala Gly Val Gly Ile Pro Trp Glu Gln Ser Ser  
 35 40 45  
 Lys Leu Phe Pro Ala Pro Ala Ser Pro His Ser His Asp Thr Gln Thr  
 50 55 60  
 Cys Ala Arg Pro Gly Pro Arg Ser Pro Cys Gln Gly Pro Gln Pro Val  
 65 70 75 80  
 Arg Cys Phe Leu Gly Gly Ser Ser Ala Ile Ser Pro Ala Ala Ala Leu  
 85 90 95  
 Cys Phe Pro Leu Leu Pro Arg Pro Pro Phe Thr Arg  
 100 105

<210> 327  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 327  
 cactataaaa tccagtttgg ggcccgtgtt ctttcctatt ggtctgtcag gtgaaaaact  
 60

ccggctgggg gaaaagcgtc cggtggtttg ttggtaaaga gggtagctga tgggtctctgg  
 120  
 ggaatggagg atggcgacc ggctgtgggt ggactgtgga aacggggggg ggtagtgccg  
 180  
 gggtagttgt cctgctggtc tggttttggg atcctgggct ggagaaatgc gatccaaaag  
 240  
 agctcgggat gggctcagag cgaccacga aaataccagg ggccaagtaa aatgaaccca  
 300  
 ccctttaaca gtgcacaaag cgctggcaca cgggccacgt ctggtagacgc aggtgccccg  
 360  
 aagcgtcca accattttgc aaacctggga gagcaagagg ggctctgcag gtctagccgc  
 420  
 cgccctgtc ccactctggc cagccggagt tttcaccta cagaccaata ggaaagaaca  
 480  
 cgggccccaa actggatttt atagtctgag ctctcagcat ctaaggaatg atatgcc  
 538

<210> 328

<211> 125

<212> PRT

<213> Homo sapiens

<400> 328

Met	Val	Gly	Ala	Leu	Arg	Ala	Ala	Cys	Val	Thr	Arg	Arg	Gly	Pro	Cys
1				5					10					15	
Ala	Ser	Ala	Leu	Cys	Thr	Val	Lys	Gly	Trp	Val	His	Phe	Thr	Trp	Pro
			20					25					30		
Leu	Val	Phe	Ser	Trp	Val	Ala	Leu	Ser	Pro	Ser	Arg	Ala	Leu	Leu	Asp
		35					40				45				
Arg	Ile	Ser	Pro	Ala	Gln	Asp	Pro	Lys	Thr	Arg	Pro	Ala	Gly	Gln	Leu
	50					55				60					
Pro	Arg	His	Cys	His	Pro	Pro	Phe	Pro	Gln	Ser	Thr	His	Ser	Arg	Cys
65					70				75					80	
Ala	Ile	Leu	His	Ser	Pro	Glu	Pro	Ile	Thr	His	Pro	Leu	Tyr	Gln	Gln
			85						90					95	
Thr	Thr	Gly	Arg	Phe	Ser	Pro	Ser	Arg	Ser	Phe	Ser	Pro	Asp	Arg	Pro
		100						105					110		
Ile	Gly	Lys	Asn	Thr	Gly	Pro	Lys	Leu	Asp	Phe	Ile	Val			
		115					120					125			

<210> 329

<211> 407

<212> DNA

<213> Homo sapiens

<400> 329

tccggagagt tccctcccca ggaattcctt ctaagaatcc atgtggaaat agagcctgaa  
 60  
 gctcttcagt cttctgtctc cactgagcag tgttttcttg atacccttgg tatcttgcca  
 120  
 gcagcctcgt tatgactcct aactccattg cctccatgg cccctgggag ctctctctct  
 180  
 cttctctctc aggtagtaga gcactgcttc tggtctcttg tgcacagaag ggtttccac  
 240

agctgagagc tgggctccta ctgacatagt tatttccttt atatacctgcc ccaccttctt  
 300  
 ctggttagcac acagcaacct tgcatagttag ctggtatcat taccttccca atcaacaggc  
 360  
 cttgatttct tataggactt tttctctcag atttacattg cttctttt  
 407

<210> 330  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 330  
 Met Ile Pro Ala Thr Met Gln Gly Cys Cys Val Leu Pro Glu Glu Gly  
 1 5 10 15  
 Gly Ala Gly Tyr Lys Gly Asn Asn Tyr Val Ser Arg Ser Pro Ala Leu  
 20 25 30  
 Ser Cys Gly Lys Pro Phe Cys Ala Gln Glu Ala Arg Ser Ser Ala Leu  
 35 40 45  
 Leu Pro Gly Glu Lys Glu Arg Glu Ser Ala Gln Gly Pro Trp Arg Ala  
 50 55 60  
 Met Glu Leu Gly Val Ile Thr Arg Leu Leu Ala Gly Tyr Gln Gly Tyr  
 65 70 75 80  
 Gln Glu Asn Thr Ala Gln Trp Ser Arg Lys Thr Glu Glu Leu Gln Ala  
 85 90 95  
 Leu Phe Pro His Gly Phe Leu Glu Gly Ile Pro Gly Glu Gly Thr Leu  
 100 105 110  
 Arg

<210> 331  
 <211> 523  
 <212> DNA  
 <213> Homo sapiens

<400> 331  
 tgtaccgaac ctgctggtct cgagggcctt gctgggctcg tcgtacgcac agctgacgaa  
 60  
 tccaccggcc cccatcccgg cgccactttc gctgaggcca tggagtcat cggagccagc  
 120  
 tacgacggat cggccggggt ggccggaagt cacgtcggcg tcgatgtgcc cgtgacaagg  
 180  
 ttcgacgcag cggctgaact cttcgtcgaa ttgttgaaca ccacgagcct ggttgaagag  
 240  
 gacatcgccc gtcagatcga cgcggcgga gctccctgg cccagaccag ccagcgcgga  
 300  
 tcggccctag ccgagatggc agcagcacgt gcgctatggc cagtggggtc acggtcgtcc  
 360  
 ctgcccacga tcggtaccct ctcgtcggtg gaaaagctca acgcccagc cgcacgagaa  
 420  
 ttctgggccc cgcaactggac gatctccgat gccgtgctgg tggttgccgg agagggagtc  
 480  
 gaggacctcg acttgtcaat attcaaggag tggacgacca gct  
 523

<210> 332  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 332  
 Cys Thr Glu Pro Ala Gly Leu Glu Gly Leu Ala Gly Leu Val Val Arg  
 1 5 10 15  
 Thr Ala Asp Glu Ser Thr Gly Pro His Pro Gly Ala Thr Phe Ala Glu  
 20 25 30  
 Ala Met Glu Ser Ile Gly Ala Ser Tyr Asp Gly Ser Ala Gly Leu Ala  
 35 40 45  
 Gly Ser His Val Gly Val Asp Val Pro Val Thr Arg Phe Asp Ala Ala  
 50 55 60  
 Ala Glu Leu Phe Val Glu Leu Leu Asn Thr Thr Ser Leu Val Glu Glu  
 65 70 75 80  
 Asp Ile Ala Arg Gln Ile Asp Ala Ala Arg Ala Ser Leu Ala Gln Thr  
 85 90 95  
 Ser Gln Arg Gly Ser Ala Leu Ala Glu Met Ala Ala Ala Arg Ala Leu  
 100 105 110  
 Trp Pro Val Gly Ser Arg Ser Ser Leu Pro Thr Ile Gly Thr Leu Ser  
 115 120 125  
 Ser Val Glu Lys Leu Asn Ala Ala Ala Arg Glu Phe Trp Ala Ala  
 130 135 140  
 His Trp Thr Ile Ser Asp Ala Val Leu Val Val Ala Gly Glu Gly Val  
 145 150 155 160  
 Glu Asp Leu Asp Leu Ser Ile Phe Lys Glu Trp Thr Thr Ser  
 165 170

<210> 333  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 333  
 nntgttcgtc gtgtcgaccc ggaactcaag gccaggcgga tgacgggtgaa ggtgcccaacc  
 60  
 gatccccatc accgcccggg agttccattg aagtctgcga aggaccgtat ggacatcatt  
 120  
 tctgcttacc gagaactcgg aagctatcgc gccgcagccg aggtgtgcgg caccacccac  
 180  
 aagaccgtca agcgggtggt cgatcggttt gaagccggcg atccacccac cggtggcaag  
 240  
 gaacgggccc gcaactacga tgcggtggcc cagctcgtcg cgcagcgagt cgcgcggtca  
 300  
 caccggccga tcaactgcaa acggctgcta ccggtagcgc gagcggcagg atatgagggg  
 360  
 tcggcgcgga at  
 372

<210> 334  
 <211> 88  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 334

```

Met Asp Ile Ile Ser Ala Tyr Arg Glu Leu Gly Ser Tyr Arg Ala Ala
 1             5             10             15
Ala Glu Val Cys Gly Thr Thr His Lys Thr Val Lys Arg Val Val Asp
      20             25             30
Arg Phe Glu Ala Gly Asp Pro Pro Thr Gly Gly Lys Glu Arg Ala Arg
      35             40             45
Asn Tyr Asp Ala Val Ala Gln Leu Val Ala Gln Arg Val Ala Arg Ser
      50             55             60
His Gly Arg Ile Thr Ala Lys Arg Leu Leu Pro Val Ala Arg Ala Ala
      65             70             75             80
Gly Tyr Glu Gly Ser Ala Arg Asn
                        85

```

&lt;210&gt; 335

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 335

```

gtgcacgcct tgctggggcga gggcgatgcg cctgcgcgca ccttcgtgga cggtagcttt
60
ggcaggggag ggcattcgcg gctcattctg cagcggttgg ggccgcaagg ccgcctgggtg
120
gcgttcgaca aggacaccga agccattcaa gcagcggcgc gcatcacgga tgcgcgcttt
180
tccatcnggc accaggggtt cagccatctc ggggaactgc ccgcgcgccag cgtgtccggt
240
gtgctgctgg acctggggcg gagctccccg cagatcgacg acccccagcg cgggttcagt
300
tttcgtttcg atgggtccgct ggacatgcgc atggacacca ctccgatgca tggatg
356

```

&lt;210&gt; 336

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 336

```

Val His Ala Leu Leu Gly Glu Gly Asp Ala Pro Ala Arg Thr Phe Val
 1             5             10             15
Asp Gly Thr Phe Gly Arg Gly Gly His Ser Arg Leu Ile Leu Gln Arg
      20             25             30
Leu Gly Pro Gln Gly Arg Leu Val Ala Phe Asp Lys Asp Thr Glu Ala
      35             40             45
Ile Gln Ala Ala Ala Arg Ile Thr Asp Ala Arg Phe Ser Ile Xaa His
      50             55             60
Gln Gly Phe Ser His Leu Gly Glu Leu Pro Ala Ala Ser Val Ser Gly
      65             70             75             80
Val Leu Leu Asp Leu Gly Val Ser Ser Pro Gln Ile Asp Asp Pro Gln
      85             90             95
Arg Gly Phe Ser Phe Arg Phe Asp Gly Pro Leu Asp Met Arg Met Asp

```

100  
Thr Thr Pro Met His Gly  
115

105

110

<210> 337  
<211> 447  
<212> DNA  
<213> Homo sapiens

<400> 337  
cagcctctct cgcaccgcgc cgggtgtgaag cacgggcatg ccggtgtgca agtggcacca  
60  
cagccaaaac agcgagctca cacttcaaac tccttcaaag accccaggcc tctgtaagaa  
120  
ccgctcatct ctgtgccac agctcccccg cttccatgtg acccagaaat ggaaccacgc  
180  
agcagaggcg gggatcacag gtgaagcagc tgtgaacatt tgcttcaggc ttctgtgcaa  
240  
acaggcgcca tcattgcagc cggtagcag gagcaacgtg cgtgggtcag ggggtggcca  
300  
cacgtccaac ttataagaa atgacagatt ccctgatggc catagggatc tgcagggcca  
360  
gcagcaggca taggacttcc ggtggccctg cgtcttcac aacactgagt attgtcaggg  
420  
tttctgtact gtttttacag ccaattg  
447

<210> 338  
<211> 111  
<212> PRT  
<213> Homo sapiens

<400> 338  
Met Pro Val Cys Lys Trp His His Ser Gln Asn Ser Glu Leu Thr Leu  
1 5 10 15  
Gln Thr Pro Ser Lys Thr Pro Gly Leu Cys Lys Asn Arg Ser Ser Leu  
20 25 30  
Cys Pro Gln Leu Pro Arg Phe His Val Thr Gln Lys Trp Asn His Ala  
35 40 45  
Ala Glu Ala Gly Ile Thr Gly Glu Ala Ala Val Asn Ile Cys Phe Arg  
50 55 60  
Leu Leu Cys Lys Gln Ala Pro Ser Cys Gln Pro Val Ser Arg Ser Asn  
65 70 75 80  
Val Arg Gly Ser Gly Gly Gly His Thr Ser Asn Phe Ile Arg Asn Asp  
85 90 95  
Arg Phe Pro Asp Gly His Arg Asp Leu Gln Gly Gln Gln Ala  
100 105 110

<210> 339  
<211> 588  
<212> DNA  
<213> Homo sapiens

<400> 339

tctagaatga agcgctgtat cctagcaccg gcagacgtac caagactatc aagggcgtea  
 60  
 gatcggttat cctgcagttg ccattcatca gacaaatcca gtggaaccca atggaagaca  
 120  
 ccgacctgca agcgctgatg gccagactcg aattgcta atgacggggtc gagcaactta  
 180  
 agagtcaaaa cggactccta ttagctcagg aaaagacctg ggccgcganaa cgcgctcacc  
 240  
 tcattgaaaa aaacgaaatc gcccgcgta aggtcgaatc gatgatttcg cgcctgaagg  
 300  
 ccctggagca agactatgag ttaagcaata gcgttacgtg cagatcctcg acaaagaata  
 360  
 ttgatcatc tgccccagg aagaacgcag cacctgggtga gtgctgcccg ctacctggaa  
 420  
 ggccaaaagg cgtgaaatcc gcagcagcgg caaagtcacg ggtgccgacc gcacgcgcgt  
 480  
 gatggccgcg ctgaacatca cccacgatct gctgcataag caggaacggc ctgacgttca  
 540  
 ggccagcggc tcaacgcgcg agcaagtgcg tgacctgctg gaacgcgt  
 588

<210> 340  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 340  
 Met Glu Asp Thr Asp Leu Gln Ala Leu Met Ala Arg Leu Glu Leu Leu  
 1 5 10 15  
 Ile Asp Arg Val Glu Gln Leu Lys Ser Gln Asn Gly Leu Leu Leu Ala  
 20 25 30  
 Gln Glu Lys Thr Trp Ala Arg Xaa Arg Ala His Leu Ile Glu Lys Asn  
 35 40 45  
 Glu Ile Ala Arg Arg Lys Val Glu Ser Met Ile Ser Arg Leu Lys Ala  
 50 55 60  
 Leu Glu Gln Asp Tyr Glu Leu Ser Asn Ser Val Thr Cys Arg Ser Ser  
 65 70 75 80  
 Thr Lys Asn Ile Arg Ser Ser Ala Pro Arg Lys Asn Ala Ala Pro Gly  
 85 90 95  
 Glu Cys Cys Pro Leu Pro Gly Arg Pro Lys Gly Val Lys Ser Ala Ala  
 100 105 110  
 Ala Ala Lys Ser Ser Val Pro Thr Ala Ser Pro  
 115 120

<210> 341  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 341  
 ngccgcgcgg cctacctgct gtacctggcc tatgccacct ggcgtagacc ctcggccttt  
 60  
 gcaatgaacg acacgcgcgac agttgcgacc gcgcgcagcc tgatcctgcg tggcttcttg  
 120

ctgaacattc ttaaccccaa gctgacaatt ttcttcctgg ccttcctgcc tcaattcgta  
 180  
 acgccaggcg gcaccgcgcc ggccttgacg atgctgggtac tgagcggcgt gttcatggcg  
 240  
 atgacgcttg cagtgtttgt gctgtatggc ctgttgccga atgtgtttcg tcgtgcagtg  
 300  
 gtcgagtcgc cacgtgtgca gaactggctg cgacgcagtt ttgccacggc ctttgccggg  
 360  
 ctgggggtga acctggcggt tgcgcagcgc tgaggacgcg t  
 401

<210> 342

<211> 130

<212> PRT

<213> Homo sapiens

<400> 342

Xaa	Arg	Ala	Ala	Tyr	Leu	Leu	Tyr	Leu	Ala	Tyr	Ala	Thr	Trp	Arg	Asp
1			5					10					15		
Arg	Ser	Ala	Phe	Ala	Met	Asn	Asp	Thr	Pro	Thr	Val	Ala	Thr	Ala	Arg
		20					25					30			
Ser	Leu	Ile	Leu	Arg	Gly	Phe	Leu	Leu	Asn	Ile	Leu	Asn	Pro	Lys	Leu
		35				40					45				
Thr	Ile	Phe	Phe	Leu	Ala	Phe	Leu	Pro	Gln	Phe	Val	Thr	Pro	Gly	Gly
	50				55					60					
Thr	Ala	Pro	Ala	Leu	Gln	Met	Leu	Val	Leu	Ser	Gly	Val	Phe	Met	Ala
65				70					75					80	
Met	Thr	Leu	Ala	Val	Phe	Val	Leu	Tyr	Gly	Leu	Leu	Ala	Asn	Val	Phe
			85					90					95		
Arg	Arg	Ala	Val	Val	Glu	Ser	Pro	Arg	Val	Gln	Asn	Trp	Leu	Arg	Arg
		100					105					110			
Ser	Phe	Ala	Thr	Ala	Phe	Ala	Gly	Leu	Gly	Leu	Asn	Leu	Ala	Phe	Ala
	115						120					125			
Gln	Arg														
130															

<210> 343

<211> 389

<212> DNA

<213> Homo sapiens

<400> 343

gtgttgcgca actacatggc gtccttgccg ttcagcgtgg tcgagtcggc gcgcacgcac  
 60  
 ggggtgctcca acttcagat cttctggaag ctgatcgccc cgatggcgat gccggcgatg  
 120  
 gcggcggttcg cgaccctgca gttcctgtgg gtgtggaacg acctgctcat cgccaagctc  
 180  
 ttctcacca acgacaaccc cacggtgac gtcaagctcc aacagcttcc cnnngggcccc  
 240  
 aaggcccagg gtgcggagct gctgacggcg ggcgccttca tctccatcgt gctacccatg  
 300  
 atcgtcttct tcgtgctcca gaacttctg gtgcgcggta tgacgtcggg tgccgtcaag  
 360

gggtgaccgc tcaactgcag tggcccggg  
389

<210> 344  
<211> 121  
<212> PRT  
<213> Homo sapiens

<400> 344  
Val Leu Arg Asn Tyr Met Ala Ser Leu Pro Phe Ser Val Val Glu Ser  
1 5 10 15  
Ala Arg Ile Asp Gly Cys Ser Asn Phe Gln Ile Phe Trp Lys Leu Ile  
20 25 30  
Ala Pro Met Ala Met Pro Ala Met Ala Ala Phe Ala Thr Leu Gln Phe  
35 40 45  
Leu Trp Val Trp Asn Asp Leu Leu Ile Ala Lys Leu Phe Leu Thr Asn  
50 55 60  
Asp Asn Pro Thr Val Ile Val Lys Leu Gln Gln Leu Ser Xaa Gly Pro  
65 70 75 80  
Lys Ala Gln Gly Ala Glu Leu Leu Thr Ala Gly Ala Phe Ile Ser Ile  
85 90 95  
Val Leu Pro Met Ile Val Phe Phe Val Leu Gln Asn Phe Leu Val Arg  
100 105 110  
Gly Met Thr Ser Gly Ala Val Lys Gly  
115 120

<210> 345  
<211> 360  
<212> DNA  
<213> Homo sapiens

<400> 345  
ctagtacttt atgctgatgg tgaacgctgt tacatccttg cccctaaagg catggttgct  
60  
ggatgatgtga tccaatctgg tgaagatgca tcaattaaag taggtaactg cttaccgatg  
120  
cgtaatatc cagttggtac aacagtacac gctgtagaaa tgaaacctgc taaaggtgca  
180  
caaattgcac gttctgctgg ttcttacagc caaattatag ctgctgatgg tgcttacggt  
240  
actctacggt tacgtagtgg tgaaatgcgt aaaatccctg ctgagtgtcg tgcaacaatc  
300  
ggatgaagttg gtaatgcaga acatatgcta cgtcaactag gtaaagctgg tgctacgcgt  
360

<210> 346  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 346  
Leu Val Leu Tyr Ala Asp Gly Glu Arg Arg Tyr Ile Leu Ala Pro Lys  
1 5 10 15  
Gly Met Val Ala Gly Asp Val Ile Gln Ser Gly Glu Asp Ala Ser Ile

```

      20      25      30
Lys Val Gly Asn Cys Leu Pro Met Arg Asn Ile Pro Val Gly Thr Thr
      35      40      45
Val His Ala Val Glu Met Lys Pro Ala Lys Gly Ala Gln Ile Ala Arg
      50      55      60
Ser Ala Gly Ser Tyr Ser Gln Ile Ile Ala Arg Asp Gly Ala Tyr Val
      65      70      75      80
Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Ile Pro Ala Glu Cys
      85      90      95
Arg Ala Thr Ile Gly Glu Val Gly Asn Ala Glu His Met Leu Arg Gln
      100      105      110
Leu Gly Lys Ala Gly Ala Thr Arg
      115      120

```

<210> 347  
 <211> 565  
 <212> DNA  
 <213> Homo sapiens

```

<400> 347
accggtgatg ccaaaggtgc tgtgacaagg ggattcatcg gttcgggcaa ggtcgtcacg
60
gcagctgccg tcatcatgat ttcggtgttc gtcttcttca tccccgaggg catgaacgcc
120
atcaaggaaa tcgccctggc cctggccgtc gggatcctca cggatgcctt cttggtgcgg
180
atgaccctcg tcccggccgt gatggccctg ctaggtgaca aggcattggtg gttgcccggg
240
tggttgatc gacgcctacc ccgcctcgac atcgaggag aaggatcac ccacaggaa
300
aagctggccg cctggccac agcggatcac accgagggcc tgcacgccga ggggatcggg
360
gtggaggggc tcttcgaagg cctcgatctg cacgtcgaa cgcgtcaggt gcaagccgtc
420
gtcggatcgc agaacagtgt ctcgccgctc ctgctggcga tcgggggacg gctgcccttg
480
gatcacggcc ggtgaggtc gggaggattg ctgctaccg agcgggcttc cagagtgcgt
540
cgggtgacgt ggttcctcga cgcgt
565

```

<210> 348  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

```

<400> 348
Thr Gly Asp Ala Lys Gly Ala Val Thr Arg Gly Phe Ile Gly Ser Gly
1      5      10      15
Lys Val Val Thr Ala Ala Ala Val Ile Met Ile Ser Val Phe Val Phe
20      25      30
Phe Ile Pro Glu Gly Met Asn Ala Ile Lys Glu Ile Ala Leu Ala Leu
35      40      45
Ala Val Gly Ile Leu Thr Asp Ala Phe Leu Val Arg Met Thr Leu Val

```

```

      50              55              60
Pro Ala Val Met Ala Leu Leu Gly Asp Lys Ala Trp Trp Leu Pro Gly
65              70              75              80
Trp Leu Asp Arg Arg Leu Pro Arg Leu Asp Ile Glu Gly Glu Gly Ile
      85              90              95
Thr His Glu Glu Lys Leu Ala Ala Trp Pro Thr Ala Asp His Thr Glu
      100             105             110
Ala Leu His Ala Glu Gly Ile Gly Val Glu Gly Leu Phe Glu Gly Leu
      115             120             125
Asp Leu His Val Glu Pro Arg Gln Val Gln Ala Val Val Gly Ser Gln
      130             135             140
Asn Ser Val Ser Ala Val Leu Leu Ala Ile Gly Gly Arg Leu Pro Leu
145             150             155             160
Asp His Gly Arg Met Arg Ser Gly Gly Leu Leu Leu Pro Glu Arg Ala
      165             170             175
Ser Arg Val Arg Arg Val Thr Trp Phe Leu Asp Ala
      180             185

```

<210> 349  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

```

<400> 349
ntgctggcca cggataatga ccgtactctg cgtgatgtcg ttgccgctga ccctacccat
60
gagctcgggt cggctaccgc tcatacgttt gcggacaatt tgccgttcct tcttaaactg
120
ctcgcggcag aagagccact atcgttgcag gctcatccca gtttggcgca agcacaggaa
180
gggtacgggc gggagaatcg caaaggggtg ccattagatg cccagaccg gaattaccac
240
gatcccaacc ataaaccgga gcttattggt gggctgacgc gattccacgc actagccggc
300
ttcgtgaac cacaacgcac acttgagctt ttgacgcg
339

```

<210> 350  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

```

<400> 350
Xaa Leu Ala Thr Asp Asn Asp Arg Thr Leu Arg Asp Val Val Ala Ala
1              5              10              15
Asp Pro Thr His Glu Leu Gly Ser Ala Thr Ala His Thr Phe Ala Asp
      20              25              30
Asn Leu Pro Phe Leu Leu Lys Leu Leu Ala Ala Glu Glu Pro Leu Ser
      35              40              45
Leu Gln Ala His Pro Ser Leu Ala Gln Ala Gln Glu Gly Tyr Gly Arg
      50              55              60
Glu Asn Arg Lys Gly Val Pro Leu Asp Ala Pro Asp Arg Asn Tyr His
65              70              75              80
Asp Pro Asn His Lys Pro Glu Leu Ile Val Gly Leu Thr Arg Phe His

```

85 90 95  
 Ala Leu Ala Gly Phe Arg Glu Pro Gln Arg Thr Leu Glu Leu Phe Asp  
 100 105 110

Ala

<210> 351  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 351  
 gcgcgccccca gtgccgagac ccggggcttc aggagccggc cccgggagag aagagtgcgg  
 60  
 cggcggacgg agaaaacaac tccaaagttg gcgaaaggca ccgcccctac tcccgggctg  
 120  
 ccgcgcctc cccgccccca gccctggcat ccagagtacg ggtcgagccc gnggccatgg  
 180  
 agccccctg gggaggcggc accagggagc ctgggccccg gggctccgcc gcgaccccat  
 240  
 cgggtagacc acagaagctc cgggaccctt ccggcacctc tggacagccc aggatgtctg  
 300  
 tgccaccen ntcctctctc tctctcttgg aggcgtctg gcccatccag accg  
 354

<210> 352  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 352  
 Ala Arg Pro Ser Ala Glu Thr Arg Gly Phe Arg Ser Arg Pro Arg Glu  
 1 5 10 15  
 Arg Arg Val Arg Arg Thr Glu Lys Thr Thr Pro Lys Leu Ala Lys  
 20 25 30  
 Gly Thr Ala Pro Thr Pro Gly Leu Pro Pro Pro Pro Arg Pro Gln Pro  
 35 40 45  
 Trp His Pro Glu Tyr Gly Ser Ser Pro Xaa Pro Trp Ser Pro Pro Gly  
 50 55 60  
 Glu Ala Ala Pro Gly Ser Leu Gly Pro Gly Ala Pro Pro Arg Pro His  
 65 70 75 80  
 Arg Val Asp His Arg Ser Ser Gly Thr Leu Pro Ala Pro Leu Asp Ser  
 85 90 95  
 Pro Gly Cys Cys Trp Pro Pro Xaa Pro Pro Pro Pro Trp Arg Arg  
 100 105 110  
 Ser Gly Pro Ser Arg Pro  
 115

<210> 353  
 <211> 1469  
 <212> DNA  
 <213> Homo sapiens

<400> 353



nntcatgaag gcttgaactt gcgtgatctt cagcctgcgg acctggcggg tgacggcggt  
60  
attgagccgg tggacctcgt ggtcggagat gtctctttta tctccttgac gatgatcctt  
120  
gaacccattt cagctgttgt cagccacac ggccctcatgc tgttgctggt gaagcctcaa  
180  
tttgaggttg gttgcaaggc tttgggagcc catggcggtg tcacggaccc ggccctgcgc  
240  
ttgcaggcca tcgcggtgt catggcagca gcggtagatt tgggttgcg tatgcgtgac  
300  
gagtgcgata gcccggtgcc cgggcaggat ggaaacgttg agcacttcgt cttgctggaa  
360  
cgtacgggtc ggtgacagac gtccggcat atcatgggcc gctactgttg tcttgtgaac  
420  
gacacgagcc cttegagata cgttgctgc gtcacccatg ccacgcggga cgacgctttt  
480  
gacgcggctg ccgaattcat ctctgaaatg gcggggcgag acattggttg cgcggttccg  
540  
gatgatcagg tgaagccgat gtcaagcaag ctgccaggga tcgatcttga aagcttgga  
600  
gagttcgccc acgaggcgga ggtggtcgtc gtctttggcg gcgacggcac gatcttgca  
660  
gctgctgaat ggtcattacc tcgccacgtt cccatgattg gcgtcaacct tggccatgtc  
720  
ggttttctgg ctgagctgga gcgctccgat atggcggtc tagtgaacaa ggtgtgttcg  
780  
cgcgactaca ccgttgagga tcgcctcgtg cttaaaaacca ccgtcaccga gcattccgga  
840  
caacaccgtt ggagttcttt tgccgtcaac gagttgtctc tggaaaaggc agcccggcg  
900  
cgcgtgctcg acgttctggc gtctgtcgac gagttgccg tgcaacgctg gagttgcgac  
960  
gggatccctg tctcgacccc gaccggatcg acggcctacg cgttctcagc tggcggcccg  
1020  
gtcatgtggc ccgatctcga cggcatgtc atggtgccgt tgagcgctca cgtctcttt  
1080  
gctcgaccgc tggatcatgag ccagctgct cgagtggaac ttgacatcca gccagacggt  
1140  
tcagaatcgg cgttctctgt gtgcgacggg gcggcatcgt gcaccgtacg accgggggaa  
1200  
agaatcaccg tcgtccgcca tcccgaccgt ctgcgcattg ctcgctctggc cgcgcagccc  
1260  
ttcacatcgc gtctggtcaa gaagtttgag ctcccgtca gcgggtggcg tcagggtcgt  
1320  
gaccgtcctc acctagagga gacttcgtga tacgtagtgt gcgaattcgt ggactcggcg  
1380  
tcacatgatga gacggtcctc gaacctcat ccgcgctgac ggcagtcacc ggcgagaccg  
1440  
gcgccgaaa gaccatggtg gtcaccggt  
1469

&lt;210&gt; 354

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

```

Met Gly Arg Tyr Cys Gly Leu Val Asn Asp Thr Ser Pro Ser Arg Tyr
 1           5           10           15
Val Val Val Val Thr His Ala Thr Arg Asp Asp Ala Phe Asp Ala Ala
 20           25           30
Ala Glu Phe Ile Ser Glu Met Ala Gly Arg Asp Ile Gly Cys Ala Val
 35           40           45
Pro Asp Asp Gln Val Lys Pro Met Ser Ser Lys Leu Pro Gly Ile Asp
 50           55           60
Leu Glu Ser Leu Gly Glu Phe Ala His Glu Ala Glu Val Val Val Val
 65           70           75           80
Phe Gly Gly Asp Gly Thr Ile Leu Arg Ala Ala Glu Trp Ser Leu Pro
 85           90           95
Arg His Val Pro Met Ile Gly Val Asn Leu Gly His Val Gly Phe Leu
 100          105          110
Ala Glu Leu Glu Arg Ser Asp Met Ala Asp Leu Val Asn Lys Val Cys
 115          120          125
Ser Arg Asp Tyr Thr Val Glu Asp Arg Leu Val Leu Lys Thr Thr Val
 130          135          140
Thr Glu His Ser Gly Gln His Arg Trp Ser Ser Phe Ala Val Asn Glu
 145          150          155          160
Leu Ser Leu Glu Lys Ala Ala Arg Arg Arg Met Leu Asp Val Leu Ala
 165          170          175
Ser Val Asp Glu Leu Pro Val Gln Arg Trp Ser Cys Asp Gly Ile Leu
 180          185          190
Val Ser Thr Pro Thr Gly Ser Thr Ala Tyr Ala Phe Ser Ala Gly Gly
 195          200          205
Pro Val Met Trp Pro Asp Leu Asp Ala Met Leu Met Val Pro Leu Ser
 210          215          220
Ala His Ala Leu Phe Ala Arg Pro Leu Val Met Ser Pro Ala Ala Arg
 225          230          235          240
Val Asp Leu Asp Ile Gln Pro Asp Gly Ser Glu Ser Ala Val Leu Trp
 245          250          255
Cys Asp Gly Arg Arg Ser Cys Thr Val Arg Pro Gly Glu Arg Ile Thr
 260          265          270
Val Val Arg His Pro Asp Arg Leu Arg Ile Ala Arg Leu Ala Ala Gln
 275          280          285
Pro Phe Thr Ser Arg Leu Val Lys Lys Phe Glu Leu Pro Val Ser Gly
 290          295          300
Trp Arg Gln Gly Arg Asp Arg His His Leu Glu Glu Thr Ser
 305          310          315

```

&lt;210&gt; 355

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

```

nggatccac ctcttgaat ggaaaccac ataccagttc tcttctcga tttgaatgcg
 60
gatgacctca gtgccaatga gcagcttggt ggccccatg catccggcgt gaactccatc
 120

```

ctgcccagg agcatggcag ccagtttttc tacctgccca tcataaagca cagtgatgat  
 180  
 gaggttttcag ccacagcctc ttgggattcc tcggtgcatg attctgttca cttgaatggg  
 240  
 gtcacaccac agaataaaa gatttaccta attgtgaaaa ccacagttca actcagccac  
 300  
 cctgctgcta tggagttagt attacgaaaa cgaattgcag ccaatattta caacaaacag  
 360  
 agtttcacgc agagtttgaa gaggagaata tccctgaaaa atatatttta ttcctgtggt  
 420  
 gtaacctatg aaatagtatc caatatacca aaggcaactg aggagataga ggaccgggaa  
 480  
 acgctggctc tctggcagc aaggagttaa aacgaaggca catcagatgg gaagacgtac  
 540  
 attgagaagt acactcga  
 558

<210> 356  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 356  
 Xaa Ile Pro Pro Pro Gly Met Glu Thr His Ile Pro Val Leu Phe Leu  
 1 5 10 15  
 Asp Leu Asn Ala Asp Asp Leu Ser Ala Asn Glu Gln Leu Val Gly Pro  
 20 25 30  
 His Ala Ser Gly Val Asn Ser Ile Leu Pro Lys Glu His Gly Ser Gln  
 35 40 45  
 Phe Phe Tyr Leu Pro Ile Ile Lys His Ser Asp Asp Glu Val Ser Ala  
 50 55 60  
 Thr Ala Ser Trp Asp Ser Ser Val His Asp Ser Val His Leu Asn Gly  
 65 70 75 80  
 Val Thr Pro Gln Asn Glu Arg Ile Tyr Leu Ile Val Lys Thr Thr Val  
 85 90 95  
 Gln Leu Ser His Pro Ala Ala Met Glu Leu Val Leu Arg Lys Arg Ile  
 100 105 110  
 Ala Ala Asn Ile Tyr Asn Lys Gln Ser Phe Thr Gln Ser Leu Lys Arg  
 115 120 125  
 Arg Ile Ser Leu Lys Asn Ile Phe Tyr Ser Cys Gly Val Thr Tyr Glu  
 130 135 140  
 Ile Val Ser Asn Ile Pro Lys Ala Thr Glu Glu Ile Glu Asp Arg Glu  
 145 150 155 160  
 Thr Leu Ala Leu Leu Ala Ala Arg Ser Glu Asn Glu Gly Thr Ser Asp  
 165 170 175  
 Gly Lys Thr Tyr Ile Glu Lys Tyr Thr Arg  
 180 185

<210> 357  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 357

acgcgtgcgt gtgttgtgtg agtcgggtgt gtgcatgcgt gtgggtgtgc agcaggtggg  
 60  
 gtacgatcag gctgaaggct gatcaggcac aaggctctgg gggagagccc tggttccagc  
 120  
 cctgggggtca gagcagcagg ggccagaaag acggcagggg tgagcactgc acccgctggg  
 180  
 cagggcaggg ccacagaagg cagggcatgg aggccacgtg aagggttga cagagtggat  
 240  
 ggatgtctcc ggaagcacct gcgtggccca gtcagcagga tcagactcgc atgtgtcagg  
 300  
 gtcaccatgg gtcagcgagg atn  
 323

<210> 358  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 358  
 Met Val Thr Leu Thr His Ala Ser Leu Ile Leu Leu Thr Gly Pro Arg  
 1 5 10 15  
 Arg Cys Phe Arg Arg His Pro Ser Thr Leu Ser Ser Pro Ser Arg Gly  
 20 25 30  
 Leu His Ala Leu Pro Ser Val Ala Leu Pro Cys Pro Ala Gly Ala Val  
 35 40 45  
 Leu Thr Pro Ala Val Phe Leu Ala Pro Ala Ala Leu Thr Pro Gly Leu  
 50 55 60  
 Glu Pro Gly Leu Ser Pro Arg Ala Leu Cys Leu Ile Ser Leu Gln Pro  
 65 70 75 80  
 Asp Arg Thr Pro Pro Ala Ala His Pro His Ala Cys Thr His Pro Thr  
 85 90 95  
 His Thr Thr His Ala Arg  
 100

<210> 359  
 <211> 265  
 <212> DNA  
 <213> Homo sapiens

<400> 359  
 acgcgtaccg acaagcggcc ggtgatggcc gaccttcgcg aatcggggcg aatcgagcag  
 60  
 gatgcggaca tgatcgtctt catctaccgc gacgattact acaacaagga aaattcgccg  
 120  
 gacaaggggc tggccgagat catcatcggc aagcatcggg ggggccccac cggctcgtgc  
 180  
 aagctgaagt tcttcggcga gtacaccgt ttcgacaacc tggcccacaa ctcggttggg  
 240  
 tcgttcgaat aacggatgat tccgg  
 265

<210> 360  
 <211> 83  
 <212> PRT

<213> Homo sapiens

<400> 360

```

Thr Arg Thr Asp Lys Arg Pro Val Met Ala Asp Leu Arg Glu Ser Gly
 1           5           10           15
Ala Ile Glu Gln Asp Ala Asp Met Ile Val Phe Ile Tyr Arg Asp Asp
      20           25           30
Tyr Tyr Asn Lys Glu Asn Ser Pro Asp Lys Gly Leu Ala Glu Ile Ile
      35           40           45
Ile Gly Lys His Arg Gly Gly Pro Thr Gly Ser Cys Lys Leu Lys Phe
      50           55           60
Phe Gly Glu Tyr Thr Arg Phe Asp Asn Leu Ala His Asn Ser Val Gly
65           70           75           80
Ser Phe Glu

```

<210> 361

<211> 453

<212> DNA

<213> Homo sapiens

<400> 361

```

gctttgcagg aggaaatctc tatctctggc tgcaagatga ggctgagcta cctgagcagc
60
cggacccttg gctacaaatc tgtcctgagg atcagcctca cccacccgac catcccttc
120
aacctcatga aggtgcacct catggtagcg gtggaggggcc gcctcttcag gaagtggttc
180
gtgcagccc cagacctgtc ctattatttc atttgggaca agacagacgt ctacaaccag
240
aagggtgttg ggctttcaga agcctttgtt tccgtgggtt atgaatatga atcctgcccc
300
gatctaatec tgtgggaaaa aagaacaaca gtgctgcagg gctatgaaat tgacgcgtcc
360
aagcttggag gatggagcct agacaaacat catgccctca acattcaaag tggcatcctg
420
cacaaaggga atggngagaa ccagtttgtg tct
453

```

<210> 362

<211> 151

<212> PRT

<213> Homo sapiens

<400> 362

```

Ala Leu Gln Glu Glu Ile Ser Ile Ser Gly Cys Lys Met Arg Leu Ser
 1           5           10           15
Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Ser Val Leu Arg Ile Ser
      20           25           30
Leu Thr His Pro Thr Ile Pro Phe Asn Leu Met Lys Val His Leu Met
      35           40           45
Val Ala Val Glu Gly Arg Leu Phe Arg Lys Trp Phe Ala Ala Ala Pro
      50           55           60
Asp Leu Ser Tyr Tyr Phe Ile Trp Asp Lys Thr Asp Val Tyr Asn Gln

```

```

65          70          75          80
Lys Val Phe Gly Leu Ser Glu Ala Phe Val Ser Val Gly Tyr Glu Tyr
          85          90          95
Glu Ser Cys Pro Asp Leu Ile Leu Trp Glu Lys Arg Thr Thr Val Leu
          100          105          110
Gln Gly Tyr Glu Ile Asp Ala Ser Lys Leu Gly Gly Trp Ser Leu Asp
          115          120          125
Lys His His Ala Leu Asn Ile Gln Ser Gly Ile Leu His Lys Gly Asn
          130          135          140
Gly Glu Asn Gln Phe Val Ser
145          150

```

&lt;210&gt; 363

&lt;211&gt; 502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 363

```

ggtacacaaa aagtttgcca cagtattcac actccagggtc tccataaacc ttccagatcc
60
gctcacacaa gctggtgttc atttgettct tctgtaaact gttcaggacc ttcataaaaag
120
cggtgatgcc tgaccggtgc tcaggggagc ctttgcaaga gtcaggctga tgtgtgatgg
180
tgtccccacc accagctact ggagggagga ggtctgagga ctcagctggg tttgacctga
240
gacacctgct gggatctggg tcaccagctg aaagcacagc catgttctgc cttccacctc
300
gggggctctg ggcgcctatg ctttctgat ctgaccagc actctgggccc ttggacagca
360
gtagtgtgat cacttcacct tgcgtctgga ctgagcttct gtgctgcatg tctgggggct
420
tctcaggagc agcatgagcc tctgcggagg aggtatcatt tttcaacaaa aaatcatctg
480
aaaccacctc ttgagaatgc ag
502

```

&lt;210&gt; 364

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 364

```

Met Gln His Arg Ser Ser Val Gln Thr Gln Gly Glu Val Ile Thr Leu
1      5      10      15
Leu Leu Ser Lys Ala Gln Ser Ala Gly Ser Asp Gln Glu Ser His Gly
20     25     30
Ala Gln Ser Pro Leu Gly Glu Gly Gln Asn Met Ala Val Leu Ser Ala
35     40     45
Gly Asp Pro Asp Pro Ser Arg Cys Leu Arg Ser Asn Pro Ala Glu Ala
50     55     60
Ser Asp Leu Leu Pro Pro Val Ala Gly Gly Gly Asp Thr Ile Thr His
65     70     75     80
Gln Pro Asp Ser Cys Lys Ala Ala Pro Glu His Arg Ser Gly Ile Thr

```

				85					90				95		
Ala	Phe	Met	Lys	Val	Leu	Asn	Ser	Leu	Gln	Lys	Lys	Gln	Met	Asn	Thr
			100						105				110		
Ser	Leu	Cys	Glu	Arg	Ile	Trp	Lys	Val	Tyr	Gly	Asp	Leu	Glu	Cys	Glu
		115					120					125			
Tyr	Cys	Gly	Lys	Leu	Phe	Trp	Tyr								
		130				135									

```
<210> 365
<211> 333
<212> DNA
<213> Homo sapiens
```

```
<400> 365
atctcaacgg atgcatccat caaggagatg atccccccag gtgctcttgt tatgctcaca
60
ccactgatcg ttgggattct atttgggggt gagacctct ctggagtctt tgctggtgcc
120
cttgtctctg gtgttcagat tgccatttct gcatccaaca ctgggtggtg ctgggacaac
180
gccaaagaagt acattgagge tggagtttca gagcatgcc ggaccttgg cccaaaaggt
240
tctgaccttc acaaggcggc tgtcattggt gacaccattg gagatcctct caaggacacg
300
tctggccctt cctcaacat cctcatcaag ctt
333
```

```
<210> 366
<211> 111
<212> PRT
<213> Homo sapiens
```

<400> 366															
Ile	Ser	Thr	Asp	Ala	Ser	Ile	Lys	Glu	Met	Ile	Pro	Pro	Gly	Ala	Leu
1				5					10					15	
Val	Met	Leu	Thr	Pro	Leu	Ile	Val	Gly	Ile	Leu	Phe	Gly	Val	Glu	Thr
			20					25					30		
Leu	Ser	Gly	Val	Leu	Ala	Gly	Ala	Leu	Val	Ser	Gly	Val	Gln	Ile	Ala
		35					40					45			
Ile	Ser	Ala	Ser	Asn	Thr	Gly	Gly	Ala	Trp	Asp	Asn	Ala	Lys	Lys	Tyr
	50				55						60				
Ile	Glu	Ala	Gly	Val	Ser	Glu	His	Ala	Arg	Thr	Leu	Gly	Pro	Lys	Gly
65					70					75					80
Ser	Asp	Pro	His	Lys	Ala	Ala	Val	Ile	Gly	Asp	Thr	Ile	Gly	Asp	Pro
				85					90					95	
Leu	Lys	Asp	Thr	Ser	Gly	Pro	Ser	Leu	Asn	Ile	Leu	Ile	Lys	Leu	
			100					105					110		

```
<210> 367
<211> 381
<212> DNA
<213> Homo sapiens
```

<400> 367

gcgttcgtcg cactaccg cggcggcgga acccttgacg agctactcga agcatggaca  
 60  
 tggcagcagc tcggtgtaca cagcaaacc gtngccttg tacgactcga cnccttctgg  
 120  
 gcaccgctga cgcgctact caaccacatg accatcgaaa gcttcattcg ccctgaggac  
 180  
 cgcgcctcgc tcgtgatcgc cgataccata catcagctga tggccgatct tgagggatgg  
 240  
 accccaccac caccgaagtg gcgctcgtga catagaacaa atgattctga ctatggctca  
 300  
 ttgacatctg cgcagcggct actagctcca ttgacttcaa atcgggcctt ggccgagget  
 360  
 cngttcaggt ggcccggaat g  
 381

<210> 368

<211> 89

<212> PRT

<213> Homo sapiens

<400> 368

Ala	Phe	Val	Ala	Leu	Pro	Gly	Gly	Gly	Gly	Thr	Leu	Asp	Glu	Leu	Leu
1				5				10						15	
Glu	Ala	Trp	Thr	Trp	Gln	Gln	Leu	Gly	Val	His	Ser	Lys	Pro	Val	Xaa
			20					25						30	
Leu	Val	Arg	Leu	Asp	Xaa	Phe	Trp	Ala	Pro	Leu	Thr	Ala	Leu	Leu	Asn
		35					40					45			
His	Met	Thr	Ile	Glu	Ser	Phe	Ile	Arg	Pro	Glu	Asp	Arg	Ala	Ser	Leu
	50					55					60				
Val	Ile	Ala	Asp	Thr	Ile	His	Gln	Leu	Met	Ala	Asp	Leu	Glu	Gly	Trp
65					70					75					80
Thr	Pro	Pro	Pro	Pro	Lys	Trp	Arg	Ser							
				85											

<210> 369

<211> 313

<212> DNA

<213> Homo sapiens

<400> 369

gatacatgat cctctcatac cgcacacaca ccgtccctct ctgccgcaat tcgcagacaa  
 60  
 acttgcgagc gcttcacagc aagccgtcaa ggctgcttcc tgtgggctac cgatagtctc  
 120  
 gtacgcgagt tctcggacat caacgccaac gtcgggcaag atactgtcaa cgccatctac  
 180  
 acattctacg agcagcaagc gaccagtttc cttegccagc tgaacgacct cccacccgaa  
 240  
 gagcttcccg acgtcatcga ggactttctc cgcctgtcca ctgatgtcct tctttaccat  
 300  
 ttccagcaag ctt  
 313

<210> 370



<211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 370  
 Ser Ser His Thr Ala His Thr Pro Leu Pro Ser Ala Ala Ile Arg Arg  
 1 5 10 15  
 Gln Thr Cys Ala Gly Phe Thr Ala Ser Arg Gln Gly Cys Phe Leu Trp  
 20 25 30  
 Ala Thr Asp Ser Leu Val Arg Glu Phe Ser Asp Ile Asn Ala Asn Val  
 35 40 45  
 Gly Gln Asp Thr Val Asn Ala Ile Tyr Thr Phe Tyr Glu Gln Gln Ala  
 50 55 60  
 Thr Ser Phe Leu Arg Gln Leu Asn Asp Leu Pro Glu Glu Leu Pro  
 65 70 75 80  
 Asp Val Ile Glu Asp Phe Phe Arg Leu Ser Thr Asp Val Leu Leu Tyr  
 85 90 95  
 His Phe Gln Gln Ala  
 100

<210> 371  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 371  
 atgacgggtc acgtcatcct ggcgattcca caggtgggtga cgatcatggat cggcctcatc  
 60  
 tgcacgcgca ttggcacggg ctttatcaag ccgaacctct ccacggtggt aggaggtctt  
 120  
 tacgatgacg gtgacccccg ccgcgatcag ggtttcctgt acttctacat gtcgatcagt  
 180  
 attggatctc tcttcgcgcc gatcgtcacc ggctctctca aggaccatta cggtaccac  
 240  
 gtaggtttca ttgcgctgc tateggtatg gctctgggtc tgcacgctt cttccacggt  
 300  
 cgttccaaac tgcgtgagct cgccttcgac atccccaatc cgctggcccc cggcgagggt  
 360  
 cgccggatgg tgctccgcgg  
 380

<210> 372  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 372  
 Met Thr Gly His Val Ile Leu Ala Ile Pro Gln Val Val Thr Ser Trp  
 1 5 10 15  
 Ile Gly Leu Ile Cys Ile Ala Ile Gly Thr Gly Phe Ile Lys Pro Asn  
 20 25 30  
 Leu Ser Thr Val Val Gly Gly Leu Tyr Asp Asp Gly Asp Pro Arg Arg  
 35 40 45  
 Asp Gln Gly Phe Leu Tyr Phe Tyr Met Ser Ile Ser Ile Gly Ser Leu

```

      50              55              60
Phe Ala Pro Ile Val Thr Gly Leu Leu Lys Asp His Tyr Gly Tyr His
65              70              75              80
Val Gly Phe Ile Ala Ala Ala Ile Gly Met Ala Leu Gly Leu Ile Ala
      85              90              95
Phe Phe His Gly Arg Ser Lys Leu Arg Glu Leu Ala Phe Asp Ile Pro
      100              105              110
Asn Pro Leu Ala Pro Gly Glu Gly Arg Arg Met Val Leu Arg
      115              120              125

```

<210> 373  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

```

<400> 373
acatgttgga aaaattgcct ccactctgg tgctacaggt atgaatctca gccacagtga
60
tgactgtggc agctacaggc ctgatgaaca cccaccaag aaaaggagca tcatgtgcct
120
gcttctctct ggttctctaaa tcctttggcc aaacattttc cccacaaccc tccactccag
180
ttggctgggc actgcctctc agaaagaagt ccaggtccc tgctagcccc agagcgcttg
240
catggactct gccactgtc cctttccaac acggaggccc ccaattctgg ggaccctac
300
accctaccct gtaccaccac atcccatgct ctgctccaga cagcactaac ctcccatgac
360
agtgggacca aagcagttct taaaggtcca atccactcag ttcttaaatg aaaaacagtt
420
gcccagagt ccccccaaa gacgtccgca catatgccaa acattcgggtg tgcac
475

```

<210> 374  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

```

<400> 374
Met Gly Met Trp Trp Tyr Arg Val Gly Cys Arg Gly Pro Gln Asn Trp
1      5      10      15
Gly Pro Pro Cys Trp Lys Gly Thr Val Gly Arg Val His Ala Gly Ala
      20      25      30
Leu Gly Leu Thr Gly Thr Trp Asp Phe Phe Leu Arg Gly Ser Asp Gln
      35      40      45
Pro Thr Gly Val Glu Gly Cys Gly Glu Asn Val Trp Pro Lys Asp Leu
50      55      60
Gly Thr Arg Glu Lys Gln Ala His Asp Ala Pro Phe Leu Gly Gly Val
65      70      75      80
Phe Ile Arg Pro Val Ala Ala Thr Val Ile Thr Val Ala Glu Ile His
      85      90      95
Thr Cys Ser Thr Arg Val Gly Gly Asn Phe Ser Asn Met
100      105

```

<210> 375  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 375  
 nnacgcgtcg cctccacctc gaaacccgcc ggcggtcggt ttttcacccat ggccgaccgc  
 60  
 aaggcccaag ttgcgacggt cacggacacg ctgtatttca cgccgtcgca atgggatgga  
 120  
 tgcattggcac ggatgcgtgg ggataagata tcagcactga agtggaatca gatgcagatg  
 180  
 gcggcatgct ccttcatagc ggcatgtggg gcgaagctgg gctgcccga gcgcactatg  
 240  
 ggcacggcgc agctgctgta ccagcgtttc catctatttc atgcgccgac tgagttttcg  
 300  
 ttacatgagg ttgctttgac gtgtctcttc ac  
 332

<210> 376  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 376  
 Xaa Arg Val Ala Ser Thr Ser Lys Pro Ala Gly Gly Arg Phe Phe Thr  
 1 5 10 15  
 Met Ala Asp Arg Lys Ala Gln Val Ala Thr Val Thr Asp Thr Leu Tyr  
 20 25 30  
 Phe Thr Pro Ser Gln Trp Asp Gly Cys Met Ala Arg Met Arg Gly Asp  
 35 40 45  
 Lys Ile Ser Ala Leu Lys Trp Asn Gln Met Gln Met Ala Ala Cys Ser  
 50 55 60  
 Phe Ile Ala Ala Val Gly Ala Lys Leu Gly Cys Pro Gln Arg Thr Met  
 65 70 75 80  
 Gly Thr Ala Gln Leu Leu Tyr Gln Arg Phe His Leu Phe His Ala Pro  
 85 90 95  
 Thr Glu Phe Ser Leu His Glu Val Ala Leu Thr Cys Leu Phe  
 100 105 110

<210> 377  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 377  
 cgcgtgccag gtatgtcaac tgatctgtcg gatatttccg aggttgagta ccgtcaactg  
 60  
 aggctggaac gagtggtgct gtgttcggtg tggactcagg gaactgccgc agacgccgag  
 120  
 aacgctatgg cggagctgaa agcccttgct gaaacggcgg gatctcaggt actcgaagct  
 180  
 gtcattgcaac gtcggactac cccggatccg gcgacgtaca ttggttcggg caaggtggct  
 240

gagcttgccg aggtggtgcg ggcgactggt gccgatactg tcatttgtga cggatgaactt  
 300  
 gacgcccgtc agttgcgcaa cctcgaggat cgggtcaagn gcaaagttgt ggaccggtcg  
 360  
 gtctgattc  
 369

<210> 378  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 378  
 Arg Val Pro Gly Met Ser Thr Asp Leu Ser Asp Ile Ser Glu Val Glu  
 1 5 10 15  
 Tyr Arg Gln Leu Arg Leu Glu Arg Val Val Leu Cys Ser Val Trp Thr  
 20 25 30  
 Gln Gly Thr Ala Ala Asp Ala Glu Asn Ala Met Ala Glu Leu Lys Ala  
 35 40 45  
 Leu Ala Glu Thr Ala Gly Ser Gln Val Leu Glu Ala Val Met Gln Arg  
 50 55 60  
 Arg Thr Thr Pro Asp Pro Ala Thr Tyr Ile Gly Ser Gly Lys Val Ala  
 65 70 75 80  
 Glu Leu Ala Glu Val Val Arg Ala Thr Gly Ala Asp Thr Val Ile Cys  
 85 90 95  
 Asp Gly Glu Leu Asp Ala Ala Gln Leu Arg Asn Leu Glu Asp Arg Val  
 100 105 110  
 Lys Xaa Lys Val Val Asp Arg Ser Val  
 115 120

<210> 379  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 379  
 acgcgttact taaacttate tgtaaataat aaattcatta tttctagtgt gttaggtact  
 60  
 atgggctgtg gtttaccagg tgctatggca gctaaaattg cttatccaaa cgtcaagca  
 120  
 gtagctatca caggcgacgg tgcgttccaa atggtaatgc aagactttgc tacagctgtt  
 180  
 caatataact taccaatgac aatctttgta ttaaataaca aacaattgtc attcattaaa  
 240  
 tatgaacaac aagctgctgg tgaattagag tatgccattg atttctctga tatggatcat  
 300  
 gctaaatttg ctgaagctgc tgggtggtaaa ggctatgttg tgagagatgt aagtcgtctt  
 360  
 gacgacatcg ttgaagaggc aatgggtcaa gatgttccaa caatcggt  
 408

<210> 380  
 <211> 136  
 <212> PRT

<213> Homo sapiens

<400> 380

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Thr Arg Tyr Leu Asn Leu Ser Val Asn Asn Lys Phe Ile Ile Ser Ser
 1           5           10           15
Trp Leu Gly Thr Met Gly Cys Gly Leu Pro Gly Ala Met Ala Ala Lys
      20           25           30
Ile Ala Tyr Pro Asn Arg Gln Ala Val Ala Ile Thr Gly Asp Gly Ala
      35           40           45
Phe Gln Met Val Met Gln Asp Phe Ala Thr Ala Val Gln Tyr Asn Leu
      50           55           60
Pro Met Thr Ile Phe Val Leu Asn Asn Lys Gln Leu Ser Phe Ile Lys
      65           70           75           80
Tyr Glu Gln Gln Ala Ala Gly Glu Leu Glu Tyr Ala Ile Asp Phe Ser
      85           90           95
Asp Met Asp His Ala Lys Phe Ala Glu Ala Ala Gly Gly Lys Gly Tyr
      100          105          110
Val Val Arg Asp Val Ser Arg Leu Asp Asp Ile Val Glu Glu Ala Met
      115          120          125
Ala Gln Asp Val Pro Thr Ile Val
      130          135

```

<210> 381

<211> 613

<212> DNA

<213> Homo sapiens

<400> 381

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nacgcgtcat aggcggggccc agtgggaagac cacgccaaca cagttggttg agatccgcgt
60
tgaggggcaag gtcctgcgcg tcccgcgaaa tctggtcaag gcctaccact ctgggctgat
120
cgacgtcgag gactgaaccc tgggagcctg ggcggtccag catgactgct caggctcatt
180
accaaaacgc gtcgatcccg taggggtgtc gtcattgagca agcccgaagt gaccctgccc
240
gattccgccc ccgacgacct cgtcgttgag gacatcacca tcggcgacgg ccctgaagcg
300
tccgctggca acctcgtcga agtgcactac gtcggcgttg ccttaagcaa tggctgtgag
360
ttcgattctt cctggaaccg cggggagccg ctgaccttcc aactaggggc tggccagggtg
420
atccccgagt gggatgaagg tgtccaaggt atgaaggtcg gtggacgacg caaactcgtc
480
atccccacc accttgctta cggtcgcgaa ggaatctccg gtgtgatcgc tggcgggtgag
540
acgctggtct tcgtctgcga ccttgctaac atcatctgac gtgacccccg ctcaagcagt
600
cttcgcgccc ggg
613

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<210> 382

<211> 137

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 382

```

Leu Leu Arg Leu Ile Thr Lys Thr Arg Arg Ser Arg Arg Val Val Val
 1           5           10           15
Met Ser Lys Pro Glu Val Thr Leu Pro Asp Ser Ala Pro Asp Asp Leu
 20           25           30
Val Val Glu Asp Ile Thr Ile Gly Asp Gly Pro Glu Ala Ser Ala Gly
 35           40           45
Asn Leu Val Glu Val His Tyr Val Gly Val Ala Leu Ser Asn Gly Arg
 50           55           60
Glu Phe Asp Ser Ser Trp Asn Arg Gly Glu Pro Leu Thr Phe Gln Leu
 65           70           75           80
Gly Ala Gly Gln Val Ile Pro Glu Trp Asp Glu Gly Val Gln Gly Met
 85           90           95
Lys Val Gly Gly Arg Arg Lys Leu Val Ile Pro His His Leu Ala Tyr
 100          105          110
Gly Pro Gln Gly Ile Ser Gly Val Ile Ala Gly Gly Glu Thr Leu Val
 115          120          125
Phe Val Cys Asp Leu Val Asn Ile Ile
 130          135

```

&lt;210&gt; 383

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 383

```

nggagcaaca cctggtcctt gggaatgaag tgtaggagtt gcatttgctg aggttggtgt
60
ttgccaaaga gatgccagct tcttcgaact actgctgtgc aactcttcat gttcaaaacc
120
cagttttctg tttttcacac ctgaacatac acccccctgc agttgggtgg ctcccccggt
180
accagctggg ctctatctac agagagagca atggcttccc ttcccttgaa ggaagtctca
240
ccctcacaag gacacttgat ccgctgcaaa gcagaaagtg tgcggaccct ttgggaaggg
300
cgttcttttc ttgttttagaa cctaggattc tgtttttccc aaacaggatc an
352

```

&lt;210&gt; 384

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 384

```

Met Pro Ala Ser Ser Asn Tyr Cys Cys Ala Thr Leu His Val Gln Asn
 1           5           10           15
Pro Val Phe Cys Phe Ser His Leu Asn Ile His Pro Pro Ala Val Gly
 20           25           30
Trp Leu Pro Arg Tyr Gln Leu Gly Ser Ile Tyr Arg Glu Ser Asn Gly
 35           40           45
Phe Pro Ser Leu Glu Gly Ser Leu Thr Leu Thr Arg Thr Leu Asp Pro

```

50                      55                      60  
 Leu Gln Ser Arg Lys Cys Ala Asp Pro Leu Gly Arg Ala Phe Phe Ser  
 65                      70                      75                      80  
 Cys Leu Glu Pro Arg Ile Leu Phe Phe Pro Asn Arg Ile  
                     85                      90

<210> 385  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<400> 385  
 gccggcgcca cgaaatgcaa aatgcgccct tcaccggacg ccagggtgat cgagccgcca  
 60  
 gcacctcggg caatgtcctg ggcctgactg gcacacgcaa tcaaagcgag caacaacaca  
 120  
 caaaaacgca tcatgaggca gacgccaggg aagtgcaga agccgcagca ggcgcgcggc  
 180  
 gattggaaat atcggtgagg ctaatgggtca ccagcgcttg caggttgat tcggtggcca  
 240  
 attcgcggaa cgacagcacc gccagttcca gctcgccgcg cagcaccagg cgacgcaagc  
 300  
 tgcggcgcaa ctccgggtgc accaacaaca ccgcactgtt ca  
 342

<210> 386  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 386  
 Met Gln Asn Ala Pro Phe Thr Gly Arg Gln Val Asp Arg Ala Ala Ser  
 1                      5                      10                      15  
 Thr Ser Gly Asn Val Leu Gly Leu Thr Gly Thr Arg Asn Gln Ser Glu  
                     20                      25                      30  
 Gln Gln His Thr Lys Thr His His Glu Ala Asp Ala Arg Glu Val Thr  
                     35                      40                      45  
 Glu Ala Ala Ala Gly Ala Arg Arg Leu Glu Ile Ser Val Arg Leu Met  
                     50                      55                      60  
 Val Thr Ser Ala Cys Arg Leu Tyr Ser Val Ala Asn Ser Arg Asn Asp  
 65                      70                      75                      80  
 Ser Thr Ala Ser Ser Ser Ser Pro Arg Ser Thr Arg Arg Arg Lys Leu  
                     85                      90                      95  
 Arg Arg Asn Ser Gly Cys Thr Asn Asn Thr Ala Leu Phe  
                     100                      105

<210> 387  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 387  
 acgcgtgacg cgccggcatc ggaagcgttg actgcagaga agaccgcgca cgtggctgtg  
 60

ggacgtgctg gcacgtctga catggtgcgt ggacccgcct tctcttcgcc tgcgcatgcc  
 120  
 atgcaagagg agcttgacaa tgtgcgtgat ctgcgccatg cgcggcagca agcgctcgat  
 180  
 gctgttcggt ccgagctgct cgaagcgcag caagcatgtg cctcgtgccca gctgcagctg  
 240  
 cagcatgtgc cagatgatcg tgtgcgagcg catcccatat accaggcgct ccatgcggac  
 300  
 gttgcttaca tgcagcaaga acttgatcac gtacgagacg cattggcttc ggcagaatct  
 360  
 gagaatgcga gcctgcgcg  
 379

<210> 388  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 388  
 Met Arg Leu Val Arg Asp Gln Val Leu Ala Ala Cys Lys Gln Arg Pro  
 1 5 10 15  
 His Gly Ala Pro Gly Ile Trp Asp Ala Leu Ala His Asp His Leu Ala  
 20 25 30  
 His Ala Ala Ala Ala Gly Thr Arg His Met Leu Ala Ala Leu Arg  
 35 40 45  
 Ala Ala Arg Asn Glu Gln His Arg Ala Leu Ala Ala Ala His Gly Arg  
 50 55 60  
 Asp His Ala His Cys Gln Ala Pro Leu Ala Trp His Ala Gln Ala Lys  
 65 70 75 80  
 Arg Arg Arg Val His Ala Pro Cys Gln Thr Cys Gln His Val Pro Gln  
 85 90 95  
 Pro Arg Ala Arg Ser Ser Leu Gln Ser Thr Leu Pro Met Pro Ala Arg  
 100 105 110  
 His Ala

<210> 389  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<400> 389  
 ngatggccga ctgtcccact gtcagtacgc gaagctcgcc gtcgagtcgg tccacgtccg  
 60  
 ggccctccac gtgctccgca accctccgaa gcgatgacct ggcccggggg cggcaacgag  
 120  
 gtattgcgtt tggagacgct tggggtaaat tacggccagg tgcgcgccgt cgatgccctg  
 180  
 acgaccaccg tagagcgcgg caccatcacc tgcctcatgg gtcgaaatgg atcaggcaag  
 240  
 tcgtctctga tgtgggcgat ccaaggggca acaaagtcct caggaggagg actgggtcaac  
 300  
 cacgagggtt cttgggctga ccccgcaaa gccgacgccg cgaccgctcg acgaatggtg  
 360



agcttagtcc cgcagtcagc cn  
382

<210> 390  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 390  
Xaa Trp Pro Thr Val Pro Leu Ser Val Arg Glu Ala Arg Arg Arg Val  
1 5 10 15  
Gly Pro Arg Pro Gly Leu Pro Arg Ala Pro Gln Pro Ser Glu Ala Met  
20 25 30  
Thr Trp Pro Gly Gly Gly Asn Glu Val Leu Arg Leu Glu Thr Leu Gly  
35 40 45  
Val Asn Tyr Gly Gln Val Arg Ala Val Asp Ala Leu Thr Thr Thr Val  
50 55 60  
Glu Arg Gly Thr Ile Thr Cys Leu Met Gly Arg Asn Gly Ser Gly Lys  
65 70 75 80  
Ser Ser Leu Met Trp Ala Ile Gln Gly Ala Thr Lys Ser Ser Gly Arg  
85 90 95  
Val Leu Val Asn His Glu Gly Ser Trp Ala Asp Pro Arg Lys Ala Asp  
100 105 110  
Ala Ala Thr Ala Arg Arg Met Val Ser Leu Val Pro Gln Ser Ala  
115 120 125

<210> 391  
<211> 456  
<212> DNA  
<213> Homo sapiens

<400> 391  
nnacgcgttg ccgctctgtg aggcgcctat cacggtgaca ctctcggtgc tatgagcgtg  
60  
tgcgacccta tcggtggcat gcacgccttg ttcagcgact ctattcccca gcagatcttc  
120  
ctgcccgcgc cctccttctt tcgcccgcga cgaggccgac gtggagacgt ggtgcagcga  
180  
ggccgatgaa tcctggacac ccaccgcgac gacctggccg ggatcattgt cgagcccatc  
240  
ttgcaaggag ccggaggcat gtggcgtgg tctccgtect gtctgaagca cctgcgccgt  
300  
cgtgctgatg aacttgacct agttcttata gccgacgagg tcgctactgg atttgggcgg  
360  
actggcaaac ttttcgcatg cgagtgggcc gatatcggtc ctgacatcat ggtggttggg  
420  
aaatccatga ctggcgata cctgaccag tcggcc  
456

<210> 392  
<211> 55  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 392

Gly Ala Tyr His Gly Asp Thr Leu Gly Ala Met Ser Val Cys Asp Pro  
 1 5 10 15  
 Ile Gly Gly Met His Ala Xaa Phe Ser Asp Ser Ile Pro Gln Gln Ile  
 20 25 30  
 Phe Leu Pro Ala Pro Ser Phe Phe Arg Arg Arg Arg Gly Arg Arg Gly  
 35 40 45  
 Asp Val Val Gln Arg Gly Arg  
 50 55

&lt;210&gt; 393

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 393

nacgcgttgc tcgtcattgg tggctactcg gcctacgaag gtatctacac catgatgact  
 60  
 gagcggggacc ggtacccggc tttccgtatt ccgacggtgt gcatcccggc ttctatcgac  
 120  
 aacaacctcc ccggttcgga actgtccatc ggcaccgaca ccgctctcaa cgtcatcgtc  
 180  
 gaggcgatgg acaagattaa ggagtcgggt atcgcgtcca gacgctgctt cgtcgtcgag  
 240  
 acgatgggtc gtgactgcgg atacctcgcg ttgatgtcgg gtatcgagc tggcgctgag  
 300  
 cggatctata ccaacgagga cggatatctc ctggacgac tagccaacga cgtccattgg  
 360  
 ttgcgggagt c  
 371

&lt;210&gt; 394

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

Xaa Ala Leu Leu Val Ile Gly Gly Tyr Ser Ala Tyr Glu Gly Ile Tyr  
 1 5 10 15  
 Thr Met Met Thr Glu Arg Asp Arg Tyr Pro Ala Phe Arg Ile Pro Thr  
 20 25 30  
 Val Cys Ile Pro Ala Ser Ile Asp Asn Asn Leu Pro Gly Ser Glu Leu  
 35 40 45  
 Ser Ile Gly Thr Asp Thr Ala Leu Asn Val Ile Val Glu Ala Met Asp  
 50 55 60  
 Lys Ile Lys Glu Ser Gly Ile Ala Ser Arg Arg Cys Phe Val Val Glu  
 65 70 75 80  
 Thr Met Gly Arg Asp Cys Gly Tyr Leu Ala Leu Met Ser Gly Ile Ala  
 85 90 95  
 Ala Gly Ala Glu Arg Ile Tyr Thr Asn Glu Asp Gly Ile Ser Leu Asp  
 100 105 110  
 Asp Leu Ala Asn Asp Val His Trp Leu Arg Glu  
 115 120

<210> 395  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 395  
 gaattctagt tgggagattc attgaccaga cttttggaat aaacactagt catcatgcta  
 60  
 gcgacagggtg gtcttgtgca tggtagaaag gcagtccaag cctatgtctc tgaaacctgc  
 120  
 tctcatttct gttttctact ttacgattta tgttatctca tactcccat gttgcctggt  
 180  
 ctccagtttt ttacttgtg ttatttccat tcttctattc ctgctcaatt tctgcctcag  
 240  
 ggcagaattg tgtccaacag ctcttaaattg cagcgagaa actgtgatgt taaaaacatc  
 300  
 ttgttatccg gccccaaaac atgttgctct tggtaactct tactggtttg t  
 351

<210> 396  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 396  
 Met Val Glu Arg Gln Ser Lys Pro Met Ser Leu Lys Pro Ala Leu Ile  
 1 5 10 15  
 Ser Val Phe Tyr Phe Thr Ile Tyr Val Ile Ser Tyr Ser Pro Cys Cys  
 20 25 30  
 Leu Phe Ser Ser Phe Phe Thr Cys Val Ile Ser Ile Leu Leu Phe Leu  
 35 40 45  
 Leu Asn Phe Cys Leu Arg Ala Glu Leu Cys Pro Thr Ala Leu Lys Cys  
 50 55 60  
 Ser Ala Glu Thr Val Met Leu Lys Thr Ser Cys Tyr Pro Ala Pro Lys  
 65 70 75 80  
 His Val Val Leu Gly Asn Ser Tyr Trp Phe  
 85 90

<210> 397  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 397  
 gccgtcatta aagagatcac cctctctctc caacctggtg atgtctctgt cgacgggtggt  
 60  
 aatgcttatt ttggtgatac ccgcccgt gagggagaaa tacgtccac cggcattcac  
 120  
 tatgttggtg ctggcatctc cgggtgggga gtcggggccc tgaggggtccc atcaattatg  
 180  
 cctggcgggg ttaaggaatc ttacgaaatc atcggaccgg tcttagaaaa aatctccgcc  
 240  
 cacgtcgacg gtgaacctg ctgcgcatgg atgggtactg acggcgccgg acatttcgtc  
 300

aagatggtcc ataatggcat cgagtacgcc gatatgcagt tcattggcga ggcgcccttc  
 360  
 ctttttgcgn tgcccgcggg ttgaccaat gctgaggcgg ccgatgcctt cgagtcgtgg  
 420  
 aaccatggcg acctcaattc ctacctcgtc gaaatcactt ctcggttact gcgtgccaaag  
 480  
 gat  
 483

<210> 398  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 398  
 Ala Val Ile Lys Glu Ile Thr Pro Leu Leu Gln Pro Gly Asp Val Leu  
 1 5 10 15  
 Val Asp Gly Gly Asn Ala Tyr Phe Gly Asp Thr Arg Arg Arg Glu Glu  
 20 25 30  
 Glu Ile Arg Pro Thr Gly Ile His Tyr Val Gly Thr Gly Ile Ser Gly  
 35 40 45  
 Gly Gly Val Gly Ala Leu Arg Val Pro Ser Ile Met Pro Gly Gly Val  
 50 55 60  
 Lys Glu Ser Tyr Glu Ile Ile Gly Pro Val Leu Glu Lys Ile Ser Ala  
 65 70 75 80  
 His Val Asp Gly Glu Pro Cys Cys Ala Trp Met Gly Thr Asp Gly Ala  
 85 90 95  
 Gly His Phe Val Lys Met Val His Asn Gly Ile Glu Tyr Ala Asp Met  
 100 105 110  
 Gln Phe Ile Gly Glu Ala Pro Phe Leu Phe Ala Xaa Pro Ala Gly Leu  
 115 120 125  
 Thr Asn Ala Glu Ala Ala Asp Ala Phe Glu Ser Trp Asn His Gly Asp  
 130 135 140  
 Leu Asn Ser Tyr Leu Val Glu Ile Thr Ser Arg Val Leu Arg Ala Lys  
 145 150 155 160  
 Asp

<210> 399  
 <211> 314  
 <212> DNA  
 <213> Homo sapiens

<400> 399  
 nngggaatga agaccaccca gcccttcctt tcttcaaate ttctccaggc ttctgtgcat  
 60  
 ggctcatcca cccatccact cattcaccca tctatccate cactcatcca cccatccagt  
 120  
 cattcactca ttgttccatc cactcatgta cccatccact cattcgccca tttatccatc  
 180  
 cactcaacca tccactcatc caccatcca nctcatcacc cgtccagtca cccatctatc  
 240  
 caccatgta tccatccact catccaccca tccactcatc tgtccatcca cttatccacc  
 300

catctactca ccca  
314

<210> 400  
<211> 104  
<212> PRT  
<213> Homo sapiens

<400> 400  
Xaa Gly Met Lys Thr Thr Gln Pro Phe Leu Ser Ser Asn Leu Leu Gln  
1 5 10 15  
Ala Ser Val His Gly Ser Ser Thr His Pro Leu Ile His Pro Ser Ile  
20 25 30  
His Pro Leu Ile His Pro Ser Ser His Ser Leu Ile Cys Pro Ser Thr  
35 40 45  
His Val Pro Ile His Ser Phe Ala His Leu Ser Ile His Ser Thr Ile  
50 55 60  
His Ser Ser Thr His Pro Xaa His His Pro Ser Ser His Pro Ser Ile  
65 70 75 80  
His Pro Cys Ile His Pro Leu Ile His Pro Ser Thr His Leu Ser Ile  
85 90 95  
His Leu Ser Thr His Leu Leu Thr  
100

<210> 401  
<211> 2165  
<212> DNA  
<213> Homo sapiens

<400> 401  
gagaaaaatgg aactacctgt atataaatta ggtgagcaaa cagtataca ggtagtttta  
60  
agaagcaaat atatacagtc aatttaacag tgtttacttc tctggattgt ttaatggtgt  
120  
caaaatgaaa gatctattga agtttactta tacattgcat tgattgaacc ttggagagtt  
180  
ttatgaaaaa gaggggcatc ccttgccatc tgtttgccag tcttccttgc ccttccttt  
240  
gaaatgcctg cctctttttt gccagattg tttcctgacc atccgaactc agatggggtc  
300  
ctctaagttc ttctggata ttcacaaatc ccttcacaag gccacgtgc gaagtgaatg  
360  
atctggaggt gcctgggcat ctgtgttgga agggagtcaa gactcaccag ccagtcagtt  
420  
tgtgggctac agttgtccca caaaaatcag gcatgttcac ctcccctctg ggcccctaca  
480  
gctgggactg atcatagcct cagattagaa gaaatactga cttctaactc tataagccag  
540  
cactcctggg taaggagtga agctctgttg gccatgccgc ttgggactgc tgggcagagc  
600  
tgagcctaca gttttgtact ggggtgcacg gatgacagct gggaagatgg aaaggcagct  
660  
tgaggattta tagcagctaa agggtaaattg ctgttatgca aaagggtccc atatgaactt  
720

cctacaggtg tagccgcagc caagtgtctg tacagctgct gagaatttgt cggatgatga  
780  
aaaattcctc tttgcatcac aagcgagtgg aaagccaggg gctgcatgag tggagaaagc  
840  
acagtctggt ttttcaagta ctgcagagaa tgagaatacc cagccgggag cctggagtgtg  
900  
aggcccgagt tacacaggct cccggaatac agacctggga agatagggga ggagagggga  
960  
agcttgtggc cttttgatcc gcccccgaa tgcccaccgt gcgctgcttt gctgccttca  
1020  
tctctgtc agaggccttc tccttcccag agacctcctt ggatgggtct aaggagagaca  
1080  
ctgcccgggc ctttttcctt gcaatcacia ggtccaaatc ctccaggctg cgcttgatcg  
1140  
gccgcgccgc cccaatgttc tacgggtcca ttttccgggt caggattggg tggaccatgc  
1200  
cttccatctt cctgaaatc tccagtctca catggtgagg ttttctgat cttgaaagcg  
1260  
attcagggta ttttttaggg cctgacatgg tcatgggtga taccgacag gctttgggtg  
1320  
gacagtctcg actctggctg cctaagacct ggaactggga gatgcctttg ctctcctggg  
1380  
gcctgtggt ggaatgagcc agggccagga ccttgccggg aggtttgtgc gggttcttgg  
1440  
gaaggetcag atctgtagge tgatcatccg taggggcttc tgctgccgcc gactttttgt  
1500  
cttgacagtg caggacgtg agataattta catggagctt ttcttggtgt ctgtgggaag  
1560  
gaaaagaact gttttccgat tccctgtaca tgtccctgga agggattttg gatgtctgtt  
1620  
cattatgaag atggtgctcg gtgtgtctgt agaggctatg gagatgaggg gacgagtaga  
1680  
agtcagccag gaagctagge atgtgggaat gggggagggc ccttttctct aagagtttat  
1740  
ccttgccctc ctgaatttct tgcttcagga cgtaggagtc agcaaggggg ttaaggtgat  
1800  
gcttgagaaa gctgcagcgg tggggatctg atcgactcag tttctcatgc ttaaagatgt  
1860  
cattgatggc ctttctctct tccgagggtc tgcttctgaa actctggacg tgctgaatca  
1920  
ctgatggccg gctgaccgcc atatggtcag tgctttggcc atggtgggtc tgggacaaac  
1980  
tggaacacaa gtcaccccta gcaatcagtt tctttttgct gatcaaaggg ggtggggagc  
2040  
cataagggta gctgctggag aggtggccc cactcacttg ggacaaaagc ttttcttgg  
2100  
ccagtgggga catcatgcct gggttgcccc tagagtagag caggggcgtg taattaagtc  
2160  
catgg  
2165

&lt;210&gt; 402

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 402

```

Glu Tyr Pro Ala Gly Ser Leu Glu Leu Arg Pro Glu Leu His Arg Leu
 1           5           10           15
Pro Glu Tyr Arg Pro Gly Lys Ile Gly Glu Glu Arg Gly Ser Leu Trp
      20           25           30
Pro Phe Asp Pro Pro Pro Glu Cys Pro Pro Cys Ala Ala Leu Leu Pro
      35           40           45
Ser Ser Pro Ala Gln Arg Pro Ser Pro Ser Gln Arg Pro Pro Trp Met
      50           55           60
Gly Leu Arg Glu Thr Leu Pro Gly Pro Phe Ser Leu Gln Ser Gln Gly
65           70           75           80
Pro Asn Pro Pro Gly Cys Ala
                        85

```

&lt;210&gt; 403

&lt;211&gt; 369

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 403

```

cccatgggtg tgtcccagga cggcgatcatg aagcgtcagg taaatgacaa ggaaacggtc
60
gcgcacttgt tcgaatacac gacgcaagtg tctgtcgact cgacgccgca actcgtccag
120
ccttcgcccc cgtcgcacga caacctcgtg cctgtccaga tgatcttttg cttcaagcag
180
cgcaacgcga aaaagatcaa tagccaccgc tgggtatttc atgcactggg ccgcatgcta
240
cagcccagaca tggctgtctt ggtggacgtc ggcacgaagc ccggccacct cgccctatac
300
catctatggc aggcatttota tcaccgacct accttggggc gtgcttgcg cgaaattcat
360
gctatgatac
369

```

&lt;210&gt; 404

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 404

```

Pro Met Gly Val Ser Gln Asp Gly Val Met Lys Arg Gln Val Asn Asp
 1           5           10           15
Lys Glu Thr Val Ala His Leu Phe Glu Tyr Thr Thr Gln Val Ser Val
      20           25           30
Asp Ser Thr Pro Gln Leu Val Gln Pro Ser Pro Thr Ser His Asp Asn
      35           40           45
Leu Val Pro Val Gln Met Ile Phe Cys Phe Lys Gln Arg Asn Ala Lys
      50           55           60
Lys Ile Asn Ser His Arg Trp Val Phe His Ala Leu Gly Arg Met Leu
65           70           75           80
Gln Pro Asp Met Val Val Leu Val Asp Val Gly Thr Lys Pro Gly His

```

```

      85              90              95
Leu Ala Leu Tyr His Leu Trp Gln Ala Phe Tyr His Arg Pro Thr Leu
      100              105              110
Gly Gly Ala Cys Gly Glu Ile His Ala Met Ile
      115              120

```

<210> 405  
 <211> 840  
 <212> DNA  
 <213> Homo sapiens

```

<400> 405
gaattcccg gcaccagctc gaagctggag cactttgtgt ctatcctgct gaagtgcctc
60
gactcgccct ggaccacgag ggccctgtcg gagacagtgg tggaggagag cgacccaag
120
ccggccttca gcaagatgaa tgggtccatg gacaaaaagt catcgaccgt cagtgaggac
180
gtggaggcca cctgcccatt gctgcagcgg accaagtcac ggatcgagca gggatatcgtg
240
gaccgctcag agacggggct gctggacaag aaggaggggg agcaagccaa ggcgctgttt
300
gagaaggtga agaagttccg gacccatgtg gaggaggggg acattgtgta ccgcctctac
360
atgcggcaga ccacatcaaa ggtgatcaag ttcacctca tcactctgta caccgtctac
420
tacgtgcaca acatcaagtt cgacgtggac tgcaccgtgg acattgagag cctgacgggc
480
taccgcacct accgctgtgc ccacccctg gccacactct tcaagatcct ggcgtccttc
540
tacatcagcc tagtcattct ctacggctc atctgcatgt atacactgtg gtggatgcta
600
cggcgtccc tcaagaagta ctgtttgag tcgatccgtg aggagagcag ctacagcgac
660
atccccgacg tcaagaacga ctgcgcttc atgctgcacc tcattgacca atacgaccg
720
ctctactcca agcgcttcgc cgtcttctctg tcggaggtga gtgagaacaa gctgcggcag
780
ctgaacctca acaacgagtg gacgctggac aagctccggt acggagagaa gacaacgcgt
840

```

<210> 406  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

```

<400> 406
Leu Ile Cys Met Tyr Thr Leu Trp Trp Met Leu Arg Arg Ser Leu Lys
 1           5           10           15
Lys Tyr Ser Phe Glu Ser Ile Arg Glu Ser Ser Tyr Ser Asp Ile
 20          25          30
Pro Asp Val Lys Asn Asp Phe Ala Phe Met Leu His Leu Ile Asp Gln
 35          40          45
Tyr Asp Pro Leu Tyr Ser Lys Arg Phe Ala Val Phe Leu Ser Glu Val

```



50                      55                      60  
 Ser Glu Asn Lys Leu Arg Gln Leu Asn Leu Asn Asn Glu Trp Thr Leu  
 65                      70                      75                      80  
 Asp Lys Leu Arg Tyr Gly Glu Lys Thr Thr Arg  
                     85                      90

<210> 407  
 <211> 535  
 <212> DNA  
 <213> Homo sapiens

<400> 407  
 gcttattgta ccagctctcc agggctgggg acttgctaga gcagggttcc cagtgtcccc  
 60  
 aggccttact ttgctctgcc tggctctcagg gtgtaggggg tggagagctg gacttccagc  
 120  
 ctgcttcttg gctgtctagg ggccaggggc tcgggacaca gagctcctgg aggccgagca  
 180  
 caagccttgg gcagaggtga ggcagagctc tgactgtttc attcgactac gttgccaagg  
 240  
 agatgctcgc tcggagtggg tgctctggct ctgggattcc aaaccaagct gccttctctg  
 300  
 atgtggcctt agtgcctctg gcggatgtac cttggctctg cctggaccct ctctctcttc  
 360  
 caggcctctg tcccaccagg atgatgccta tccagagctc attgtctctt cccacttctt  
 420  
 ccccgagctt cccattccgt gtctctctgg agggcccatc atcatcctgg tggaggtggt  
 480  
 gcactgagga ccacagcagc cctcgcattc ccacgggcaa aggggtatgt gtagg  
 535

<210> 408  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 408  
 Met Leu Ala Arg Ser Gly Cys Ser Gly Ser Gly Ile Pro Asn Gln Ala  
 1                      5                      10                      15  
 Ala Phe Ser Asp Val Ala Leu Val Leu Trp Ala Asp Val Pro Trp Leu  
                     20                      25                      30  
 Cys Leu Asp Pro Leu Ser Leu Pro Gly Leu Cys Pro Thr Arg Met Met  
                     35                      40                      45  
 Pro Ile Gln Ser Ser Leu Ser Ser Pro Thr Ser Ser Pro Ser Phe Pro  
                     50                      55                      60  
 Phe Arg Val Ser Leu Glu Gly Pro Ser Ser Ser Trp Trp Arg Cys Cys  
 65                      70                      75                      80  
 Thr Glu Asp His Ser Ser Pro Arg Ile Pro Thr Gly Lys Gly Val Cys  
                     85                      90                      95  
 Val

<210> 409  
 <211> 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

```

ngtgtcatgg gtgtctatac cagcgatgag gccaaagactg ccaagacttt tggatttggt
60
ggacttccga ttacgactaa tatttctctt gccacaact tcaatatgga tgaaatttct
120
gatattgtct tccgtgtcaa tgataccagt ttgacaccaa ctgtgggacc agaattagct
180
agaaaattga ccgaaattgc tggctcttcag caaggggagt atcaggtgtc agatgcgact
240
gcagccttcc aagaagtgca acaattgttc ggctttataa ctacgattat tagtgccatt
300
gcaggaattt ccttttttgt tggagggact ggtgttatga acatcatgct ggtttcggtg
360
acggagcgta cgcgt
375

```

&lt;210&gt; 410

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

```

Xaa Val Met Gly Val Tyr Thr Ser Asp Glu Ala Lys Thr Ala Lys Thr
1      5      10      15
Phe Gly Ile Gly Gly Leu Pro Ile Thr Thr Asn Ile Ser Leu Ala Asn
20     25     30
Asn Phe Asn Met Asp Glu Ile Ser Asp Ile Val Phe Arg Val Asn Asp
35     40     45
Thr Ser Leu Thr Pro Thr Val Gly Pro Glu Leu Ala Arg Lys Leu Thr
50     55     60
Glu Ile Ala Gly Leu Gln Gly Glu Tyr Gln Val Ser Asp Ala Thr
65     70     75     80
Ala Ala Phe Gln Glu Val Gln Gln Leu Phe Gly Phe Ile Thr Thr Ile
85     90     95
Ile Ser Ala Ile Ala Gly Ile Ser Leu Phe Val Gly Gly Thr Gly Val
100    105    110
Met Asn Ile Met Leu Val Ser Val Thr Glu Arg Thr Arg
115    120    125

```

&lt;210&gt; 411

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

```

ccacatactt caccctctc accccctcca cctactccac cacctggcag tcgccatcga
60
ggatgggacg caactccacg tccacatgct ccggaccacg cggcgtgtgg tggatgtgca
120
gcacgcggtc ggggccctt gagctcgaag gcgcggcgca tcgggcagtg ctgcgcggcc
180

```

tggtcgcagg gcacgtcgta ctggtgagag acgcggaagc acttgaggcc gatgtaggcg  
 240  
 cgatcggtcg tcccgaactg gcgctgatag gccgtgtaca caacacaaac tgttgacttc  
 300  
 ccggtccacc acgatcatgg gctgggactc gtgttccagg tggggggcca gggcttgggc  
 360  
 ctgcggtgag cgcgtggggg ggatggggca tagcgtcggg gaggaggtg  
 409

<210> 412

<211> 119

<212> PRT

<213> Homo sapiens

<400> 412

Met Pro His Pro Pro His Ala Leu Thr Ala Gly Pro Ser Pro Gly Pro  
 1 5 10 15  
 Pro Pro Gly Thr Arg Val Pro Ala His Asp Arg Gly Gly Pro Gly Val  
 20 25 30  
 Gln Gln Phe Val Leu Cys Thr Arg Pro Ile Ser Ala Ser Ser Gly Gln  
 35 40 45  
 Pro Ile Ala Pro Thr Ser Ala Thr Ser Ala Ser Ala Ser Arg Thr Ser  
 50 55 60  
 Thr Thr Cys Pro Ala Thr Arg Pro Ala Ser Thr Ala Arg Cys Ala Ala  
 65 70 75 80  
 Pro Ser Ser Ser Arg Gly Pro Asp Arg Val Leu His Ile His His Thr  
 85 90 95  
 Pro Arg Gly Pro Glu His Val Asp Val Glu Leu Arg Pro Ile Leu Asp  
 100 105 110  
 Gly Asp Cys Gln Val Val Glu  
 115

<210> 413

<211> 357

<212> DNA

<213> Homo sapiens

<400> 413

ccgggcatcc caccaccggg tgtcatgaac caagtagtgg cccctatggt agggactcca  
 60  
 gcaccgggtg gaagtccata tggacaacag gtgggagttt tggggcctcc agggcagcag  
 120  
 gcaccacctc catatcccg cccacatcca gctgggacccc ctgtcataca gcagccaaca  
 180  
 acacccatgt ttgtagctcc cccccaaag acccagcgge ttcttcactc agaggcctac  
 240  
 ctgaaatata ttgaaggact cagtgcggag tccaacagca ttagcaagtg ggatcagaca  
 300  
 ctggcagctc ggagacgcga cgtccatttg tcgaaagaac aggagagccg cctaccc  
 357

<210> 414

<211> 119

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 414

```

Pro Gly Ile Pro Pro Pro Gly Val Met Asn Gln Val Val Ala Pro Met
 1             5             10             15
Val Gly Thr Pro Ala Pro Gly Gly Ser Pro Tyr Gly Gln Gln Val Gly
      20             25             30
Val Leu Gly Pro Pro Gly Gln Gln Ala Pro Pro Pro Tyr Pro Gly Pro
      35             40             45
His Pro Ala Gly Pro Pro Val Ile Gln Gln Pro Thr Thr Pro Met Phe
      50             55             60
Val Ala Pro Pro Pro Lys Thr Gln Arg Leu Leu His Ser Glu Ala Tyr
      65             70             75             80
Leu Lys Tyr Ile Glu Gly Leu Ser Ala Glu Ser Asn Ser Ile Ser Lys
      85             90             95
Trp Asp Gln Thr Leu Ala Ala Arg Arg Arg Asp Val His Leu Ser Lys
      100            105            110
Glu Gln Glu Ser Arg Leu Pro
      115

```

&lt;210&gt; 415

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 415

```

tctagagcca acttggttat cgtaatgaat agagagacta catctatatc aattattacg
60
ctctatagta atcatgaagc ttgggttata tgtatgacaa aaattgcaga aaaatcgaaa
120
caagaatatg gcgacttact aaaagaaaaa gaccatttac aagatatgga acagcttgag
180
atgactatcg tctcgatcca tacgccgtat ccgtccattg tcagaattca aggaaaaatc
240
aacacattac agccagagct ttggcaagct cccaatttag caattcggtt aattgtgagc
300
aatccgccag agggacaacc catctcacgc gt
332

```

&lt;210&gt; 416

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 416

```

Met Asn Arg Glu Thr Thr Ser Ile Ser Ile Ile Thr Leu Tyr Ser Asn
 1             5             10             15
His Glu Ala Trp Val Ile Cys Met Thr Lys Ile Ala Glu Lys Ser Lys
      20             25             30
Gln Glu Tyr Gly Asp Leu Leu Lys Glu Lys Asp His Leu Gln Asp Met
      35             40             45
Glu Gln Leu Glu Met Thr Ile Val Ser Ile His Thr Pro Tyr Pro Ser
      50             55             60
Ile Val Arg Ile Gln Gly Lys Ile Asn Thr Leu Gln Pro Glu Leu Trp

```

65                                70                                75                                80  
 Gln Ala Pro Asn Leu Ala Ile Arg Leu Ile Val Ser Asn Pro Pro Glu  
                               85                                90                                95  
 Gly Gln Pro Ile Ser Arg  
                               100

<210> 417  
 <211> 483  
 <212> DNA  
 <213> Homo sapiens

<400> 417  
 gaattcctcg ccgtctctga ggtgggagac gacacctttg tgcgctccac cgaggagagac  
 60  
 tacgcggcca acgtcgaggc cgtggtgacc ccagcaccgg cggagaaaga tattgagggc  
 120  
 cagccagaag cacaggaaca tgacaccccg ggtacagaga ccattgagaa gctggtcgaa  
 180  
 tgggcccagg gcgcaggcat tactgtaaac ccccgcggtg tttgttatta taccctcaag  
 240  
 tgcattgatga tcaagctcca ccacccggcc gcggagagcg aagagcgcgga gtccgagttg  
 300  
 gcggcgggttc tcatccctgg cgatcgagag ctggatgaaa agcgccttga ggccgcactc  
 360  
 gagccggttg agtttgagtt ggcaggggat aaggactttg cagacaatga cttcctagtc  
 420  
 aagggctatg ttggcccgcg cgctttgaac gccaatggca tcaagggtctt ggccgatcca  
 480  
 cgc  
 483

<210> 418  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 418  
 Glu Phe Leu Ala Val Ser Glu Val Gly Glu Asp Thr Phe Val Arg Ser  
   1                              5                              10                              15  
 Thr Glu Gly Asp Tyr Ala Ala Asn Val Glu Ala Val Val Thr Pro Ala  
                               20                              25                              30  
 Pro Ala Glu Lys Asp Ile Glu Gly Gln Pro Glu Ala Gln Glu His Asp  
                               35                              40                              45  
 Thr Pro Gly Thr Glu Thr Ile Glu Lys Leu Val Glu Trp Ala Gln Gly  
                               50                              55                              60  
 Ala Gly Ile Thr Val Asn Pro Arg Val Val Cys Tyr Tyr Thr Leu Lys  
 65                              70                              75                              80  
 Cys Met Met Ile Lys Leu His His Pro Ala Ala Glu Ser Glu Glu Arg  
                               85                              90                              95  
 Glu Ser Glu Leu Ala Ala Val Leu Ile Pro Gly Asp Arg Glu Leu Asp  
                               100                              105                              110  
 Glu Lys Arg Leu Glu Ala Ala Leu Glu Pro Val Glu Phe Glu Leu Ala  
                               115                              120                              125  
 Gly Asp Lys Asp Phe Ala Asp Asn Asp Phe Leu Val Lys Gly Tyr Val

130                      135                      140  
 Gly Pro Arg Ala Leu Asn Ala Asn Gly Ile Lys Val Leu Ala Asp Pro  
 145                      150                      155                      160  
 Arg

<210> 419  
 <211> 797  
 <212> DNA  
 <213> Homo sapiens

<400> 419  
 atttcacccc aggaaaacca gtaaggacca atgattaagc ccaaggttgg gtaccgagtt  
 60  
 cggatccata agtaccggcc gccacgggtg ctggaatttg ggctccccc ggtgaaaata  
 120  
 tccatgcagc cgcgttgtct taggtagaaa agggagactg gggtaggggtg ggctgagctc  
 180  
 aagccccctgc ctacatactt tagtagtaac gactcccgat ctgcatccaa cacatttacc  
 240  
 gaactttctag taagcgcccc ccgctgcaag cgaaagcact cccctgccaa gaaacagatc  
 300  
 ttttcactt aaaattccca aactcagacc ttccactttt tactgaacaa aaagcgtgta  
 360  
 catgatctga aggggtgaca tgacattttc taaattgggc gaatcaggaa gaggttgatg  
 420  
 aaaaaccttg acgttttctg gggataggac atttgtgtgt gataacgttc ttaagtcgaa  
 480  
 ttccagtgtg gcagtgcacg cagattcttc attggtgtta gtgtatttcc atacggtatg  
 540  
 tattagtaca agaaatagtg ttccctttga cactcgaacc caaggagtgg tccgaggctt  
 600  
 tttgaggcaa cgtaggatca atgtctctga agcagatttg gtgaaggatg caggtctcat  
 660  
 aatttacaga gcaatcacag cttcttttga aacggagaaa ttagattcta tgaaattttg  
 720  
 tcagtgcaga tagatatgat gtggagaaac ggggaaaatt gagtacaaaa agatgaggct  
 780  
 tgaatgatgg ctggcca  
 797

<210> 420  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 420  
 Met Arg Pro Ala Ser Phe Thr Lys Ser Ala Ser Glu Thr Leu Ile Leu  
 1                      5                      10                      15  
 Arg Cys Leu Lys Lys Pro Arg Thr Thr Pro Trp Val Arg Val Ser Lys  
 20                      25                      30  
 Gly Thr Leu Phe Leu Val Leu Ile His Thr Val Trp Lys Tyr Thr Asn  
 35                      40                      45  
 Thr Asn Glu Glu Ser Ala Cys Thr Ala Thr Leu Lys Phe Asp Leu Arg

```

      50              55              60
Thr Leu Ser His Thr Asn Val Leu Ser Pro Glu Asn Val Lys Asp Phe
65              70              75              80
His Gln Pro Leu Pro Asp Ser Pro Asn Leu Glu Asn Val Met Ser Thr
      85              90              95
Leu Gln Ile Met Tyr Thr Leu Phe Val Gln
      100             105

```

<210> 421  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

```

<400> 421
ggatccacca tgatggagcc caccaccca tcctcagtc acctgctgca gcttctccat
60
aacccaacac aggtcaatct tgtctcccta aacacaccat gtgctctcat gctgccatgg
120
tttgctggg gccctcteta cctcctctgc tttctggaga acccttgca cctcccaag
180
cctcaagtt ggaaagtga cagtcagcat atgtctctag ctccagcctt actgcgtgga
240
ttcatgaaga ttggttcact gtcagccct gaccagaacg tgtgttttag gaaagcagga
300
accaagtctt accaatgtct gtagtcccag cctccaccct ggcatacagt aggtgctcat
360
tgaatgtggg agggaaagag gagacacatg gaagggaatg tcattc
406

```

<210> 422  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

```

<400> 422
Met Met Glu Pro Thr His Pro Ser Ser Val His Leu Leu Gln Leu Leu
1      5      10      15
His Asn Pro Thr Gln Val Asn Leu Val Ser Leu Asn Thr Pro Cys Ala
20      25      30
Leu Met Leu Pro Trp Phe Ala Trp Gly Pro Leu Tyr Leu Leu Cys Phe
35      40      45
Leu Glu Asn Pro Cys Thr Pro Pro Lys Pro Ser Ser Trp Lys Val Asn
50      55      60
Ser Gln His Met Ser Leu Ala Gln Pro Leu Leu Arg Gly Phe Met Lys
65      70      75      80
Ile Gly Ser Leu Ser Ala Pro Asp Gln Asn Val Cys Phe Arg Lys Ala
85      90      95
Gly Thr Lys Ser Tyr Gln Cys Leu
100

```

<210> 423  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 423  
 ngccacccta cgctcgctt gcaatggcaa cttcagatcc ccggtggcac cgtagtctta  
 60  
 gagccaccgg ttctgagcgg ggaggacgac ggggttgggg cggaggaagg agagggagaa  
 120  
 ggagatgggg atttgctgac gcagaccaa gcccaaacgc cgactccagc acccgcttgg  
 180  
 ccggcgcccc cagccacacc gcgcttcttg gccctcgcaa atggctccct gttggtgcc  
 240  
 ctctgagtg ccaaggaggc gggcgtctac acttgccgtg cacacaatga gctggcgcc  
 300  
 aactctacgt caatacgcgt ggcggtggca gcaaccgggc ccccaaaaca cgcgctggc  
 360  
 gccgggggag aaccgacgg acaggccccg acctctgagc gcaagtccac agccaagggc  
 420  
 cggggcaaca gcgtcttgcc ttccaaaccc gagggcaaaa tcaaaggcca aggcctggcc  
 480  
 aaggtcagca ttctcgggga gaccgagacg gagccggagg aggacacaag tgagggagag  
 540  
 gaggccgaag accagatcct cgcggaccgg gcggaggagc agcgctgtgg caacggggac  
 600  
 ccctctcggt acgtttctaa ccacgcgt  
 628

<210> 424

<211> 209

<212> PRT

<213> Homo sapiens

<400> 424  
 Xaa His Pro Thr Pro Arg Leu Gln Trp Gln Leu Gln Ile Pro Gly Gly  
 1 5 10 15  
 Thr Val Val Leu Glu Pro Pro Val Leu Ser Gly Glu Asp Asp Gly Val  
 20 25 30  
 Gly Ala Glu Glu Gly Glu Gly Glu Gly Asp Gly Asp Leu Leu Thr Gln  
 35 40 45  
 Thr Gln Ala Gln Thr Pro Thr Pro Ala Pro Ala Trp Pro Ala Pro Pro  
 50 55 60  
 Ala Thr Pro Arg Phe Leu Ala Leu Ala Asn Gly Ser Leu Leu Val Pro  
 65 70 75 80  
 Leu Leu Ser Ala Lys Glu Ala Gly Val Tyr Thr Cys Arg Ala His Asn  
 85 90 95  
 Glu Leu Gly Ala Asn Ser Thr Ser Ile Arg Val Ala Val Ala Ala Thr  
 100 105 110  
 Gly Pro Pro Lys His Ala Pro Gly Ala Gly Gly Glu Pro Asp Gly Gln  
 115 120 125  
 Ala Pro Thr Ser Glu Arg Lys Ser Thr Ala Lys Gly Arg Gly Asn Ser  
 130 135 140  
 Val Leu Pro Ser Lys Pro Glu Gly Lys Ile Lys Gly Gln Gly Leu Ala  
 145 150 155 160  
 Lys Val Ser Ile Leu Gly Glu Thr Glu Thr Glu Pro Glu Glu Asp Thr  
 165 170 175  
 Ser Glu Gly Glu Glu Ala Glu Asp Gln Ile Leu Ala Asp Pro Ala Glu



180                      185                      190  
 Glu Gln Arg Cys Gly Asn Gly Asp Pro Ser Arg Tyr Val Ser Asn His  
 195                      200                      205  
 Ala

<210> 425  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 425  
 ccggccgctcg aagactttga ggacgatgta gctcgacgag cagcggttacg agccctggag  
 60  
 tacgtggatt tgaccccagg cactnaagtg cgcgtcatcg ccattgacac cgtgttccta  
 120  
 ggatcgtgca cgaatggccg tgaggactta cggctggctg ctgaggttcc caaaggacga  
 180  
 catatcgag cgggcaaccg gatgctcgtc gcccctggat ctgctcgtgt ccgtctgcag  
 240  
 gctatggagg aaggcctcga cgagatcggt tcccggtttg ctgacatctt tcgcaataac  
 300  
 tctgcgaaca atggcttggt actggctcag gttgacccg aggtcgtcga agagttgtgg  
 360  
 gactttgccg agcagcatcc tggtagcag ctcaccgtct ccctcgagaa tcggacgac  
 420  
 aaccttcggt gtcgcacgac ctaccggttc catattgatg acgtcacgag t  
 471

<210> 426  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 426  
 Pro Ala Val Glu Asp Phe Glu Asp Asp Val Ala Arg Ser Ala Ala Leu  
 1                      5                      10                      15  
 Arg Ala Leu Glu Tyr Val Asp Leu Thr Pro Gly Thr Xaa Val Arg Val  
 20                      25                      30  
 Ile Ala Ile Asp Thr Val Phe Leu Gly Ser Cys Thr Asn Gly Arg Glu  
 35                      40                      45  
 Asp Leu Arg Leu Ala Ala Glu Val Pro Lys Gly Arg His Ile Ala Ala  
 50                      55                      60  
 Gly Thr Arg Met Leu Val Ala Pro Gly Ser Ala Arg Val Arg Leu Gln  
 65                      70                      75                      80  
 Ala Met Glu Glu Gly Leu Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile  
 85                      90                      95  
 Phe Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp  
 100                      105                      110  
 Pro Glu Val Val Glu Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly  
 115                      120                      125  
 Glu Gln Leu Thr Val Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly  
 130                      135                      140  
 Arg Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg

145

150

155

<210> 427  
 <211> 546  
 <212> DNA  
 <213> Homo sapiens

<400> 427  
 ctacgcgtag tagaaggat gcagtttgat cgcggctact tgtctccgta ttcatcaac  
 60  
 aatcaagaaa caatgaatgc agagctagaa aaccatttta ttcttcttgt tgataagaaa  
 120  
 atttctaata tccgtgactt gctaccaatt ttggaagggt ttgctaaagc atcgcgcccc  
 180  
 ttgttgatca ttgcggaaga cgttgaaggc gaagcggttg caaccttggt tgtaaacact  
 240  
 atgcgcggca tcgtaaaagt agcggcagcg aaagcgccag gttttggtga tcgccgtaaa  
 300  
 gcaatgcttc aagacattgc tggctaacg ggttcaactg ttatttcaga agaaattggc  
 360  
 attaagcttg aagaagcgac aattgaacag ttgggtacag cgaagcgcggt tacattgaca  
 420  
 aaagaaagta caacgattgt tgatgggtgcg ggtgttgtag ctaatattac tggtcgtggt  
 480  
 gagcaaattc gtgcagaaat tgctaactct tcttctggct acgataaaga gaaattgcaa  
 540  
 gaacgc  
 546

<210> 428  
 <211> 182  
 <212> PRT  
 <213> Homo sapiens

<400> 428  
 Leu Ala Val Val Glu Gly Met Gln Phe Asp Arg Gly Tyr Leu Ser Pro  
 1 5 10 15  
 Tyr Phe Ile Asn Asn Gln Glu Thr Met Asn Ala Glu Leu Glu Asn Pro  
 20 25 30  
 Phe Ile Leu Leu Val Asp Lys Lys Ile Ser Asn Ile Arg Asp Leu Leu  
 35 40 45  
 Pro Ile Leu Glu Gly Val Ala Lys Ala Ser Arg Pro Leu Leu Ile Ile  
 50 55 60  
 Ala Glu Asp Val Glu Gly Glu Ala Leu Ala Thr Leu Val Val Asn Thr  
 65 70 75 80  
 Met Arg Gly Ile Val Lys Val Ala Ala Ala Lys Ala Pro Gly Phe Gly  
 85 90 95  
 Asp Arg Arg Lys Ala Met Leu Gln Asp Ile Ala Val Leu Thr Gly Ser  
 100 105 110  
 Thr Val Ile Ser Glu Glu Ile Gly Ile Lys Leu Glu Glu Ala Thr Ile  
 115 120 125  
 Glu Gln Leu Gly Thr Ala Lys Arg Val Thr Leu Thr Lys Glu Ser Thr  
 130 135 140  
 Thr Ile Val Asp Gly Ala Gly Val Ala Ala Asn Ile Thr Gly Arg Val

145                      150                      155                      160  
 Glu Gln Ile Arg Ala Glu Ile Ala Asn Ser Ser Ser Gly Tyr Asp Lys  
                                  165                      170                      175  
 Glu Lys Leu Gln Glu Arg  
                                  180

<210> 429  
 <211> 425  
 <212> DNA  
 <213> Homo sapiens

<400> 429  
 gctagcagcc cttacaggag acgggctaata aataatgcag cagtggctcc gacaacttgc  
 60  
 ccgttgccagc cggtcacgga tccatttgct tttagtagac aggcgctcca aagtacacca  
 120  
 ctgggcagtt cgtccaaaag cagtccacct gtcttgcaag gccagcccc cgcagggttt  
 180  
 tctcaacacc ccggtttgct tgtgccttac acacaatgca aaaaatagct ctcagggacc  
 240  
 ctgtgagccc ctgcctggac ctctgacaca gccagagca catgccagtc cgttttctgg  
 300  
 tgcattgaca ccttcagcac ctctggggcc tgagatgaac aggagtgcag aggtcgggcc  
 360  
 cagttcagag cctgaagttc agactctgcc atatcttctt cactacattc caggagtgga  
 420  
 tcctg  
 425

<210> 430  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 430  
 Met Gln Gln Trp Leu Arg Gln Leu Ala Arg Cys Ser Arg Ser Arg Ile  
   1                                  5                                  10                                  15  
 His Leu Leu Leu Val Asp Arg Arg Ser Lys Val His His Trp Ala Val  
                                   20                                  25                                  30  
 Arg Pro Lys Ala Val His Leu Ser Cys Lys Ala Gln Pro Pro Gln Gly  
                                   35                                  40                                  45  
 Phe Leu Asn Thr Pro Val Cys Leu Cys Leu Thr His Asn Ala Lys Asn  
                                   50                                  55                                  60  
 Ser Ser Gln Gly Pro Cys Glu Pro Leu Pro Gly Pro Leu Thr Gln Pro  
 65                                  70                                  75                                  80  
 Arg Ala His Ala Ser Pro Phe Ser Gly Ala Leu Thr Pro Ser Ala Pro  
                                   85                                  90                                  95  
 Pro Gly Pro Glu Met Asn Arg Ser Ala Glu Val Gly Pro Ser Ser Glu  
                                   100                                  105                                  110  
 Pro Glu Val Gln Thr Leu Pro Tyr Leu Pro His Tyr Ile Pro Gly Val  
                                   115                                  120                                  125  
 Asp Pro  
                                   130

<210> 431  
 <211> 192  
 <212> DNA  
 <213> Homo sapiens

<400> 431  
 ctagccatcc accagcgtag acacacggga gagaggccct acactggcct cgggtgcaac  
 60  
 cgccgcttcc gccagcgcac ggccctcgtc atccaccagc gcatccacac gggcgagaag  
 120  
 cctnaccggt gcccggactg cgagcggcgc ttctcctcct cctctcgctt ggtcagtcac  
 180  
 cggcgtgtgc ac  
 192

<210> 432  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 432  
 Leu Ala Ile His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Thr Gly  
 1 5 10 15  
 Leu Gly Cys Asn Arg Arg Phe Arg Gln Arg Thr Ala Leu Val Ile His  
 20 25 30  
 Gln Arg Ile His Thr Gly Glu Lys Pro Xaa Pro Cys Pro Asp Cys Glu  
 35 40 45  
 Arg Arg Phe Ser Ser Ser Ser Arg Leu Val Ser His Arg Arg Val His  
 50 55 60

<210> 433  
 <211> 635  
 <212> DNA  
 <213> Homo sapiens

<400> 433  
 nngccggcgg ctgcgttggg atacgacgtc gctgcgattg ggcgtgagta tctttggtac  
 60  
 ctcattggagg agcgtggcgc gtatgcggag gccgccgcgc tcatgccgct gctgctccgg  
 120  
 accgaccgag gcgcgtggga cacttttgtg tgctgctacc tcgagcggca ccaaagggat  
 180  
 gcgatactcc cgcacattcc gacgcaggac ccccagctga gtgagatggt gtacgatctc  
 240  
 gtgctggtgc atctgctgca gcacgatccc acgcagctgt tggcgacgct ccgcgcatgg  
 300  
 ccgagtcaca tctactcgaa gcaggcgggtg gctgcggcga tcggcgatca cgcacgaacc  
 360  
 agccgcacgc tgctcgagtg cctcgcacag ctgtacatgg ccgcacatca gcccggaag  
 420  
 gctctgacat actacatgcg cctgcgtgat ccatgcgtgt ttgatctcat tcgcgagtac  
 480  
 gatctgctga tcgatgtgca gcaccacatc ggcacgctcg tcgagctcga tcagggaatgc  
 540

gccggctcca ctgagcgcgcg ctccagcgcg cttatgccgc tgctcgtgcc atataccac  
 600  
 tcgattccca tccagcgcgc catggcgag ctcga  
 635

<210> 434  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<400> 434  
 Xaa Pro Ala Ala Leu Gly Tyr Asp Val Ala Ala Ile Gly Arg Glu  
 1 5 10 15  
 Tyr Leu Trp Tyr Leu Met Glu Glu Arg Gly Ala Tyr Ala Glu Ala Ala  
 20 25 30  
 Ala Leu Met Pro Leu Leu Leu Arg Thr Asp Arg Gly Ala Trp Asp Thr  
 35 40 45  
 Phe Val Cys Cys Tyr Leu Glu Arg His Gln Arg Asp Ala Ile Leu Pro  
 50 55 60  
 His Ile Pro Thr Gln Asp Pro Gln Leu Ser Glu Met Val Tyr Asp Leu  
 65 70 75 80  
 Val Leu Val His Leu Leu Gln His Asp Pro Thr Gln Leu Leu Ala Thr  
 85 90 95  
 Leu Arg Ala Trp Pro Ser His Ile Tyr Ser Lys Gln Ala Val Ala Ala  
 100 105 110  
 Ala Ile Gly Asp His Ala Arg Thr Ser Arg Thr Leu Leu Glu Cys Leu  
 115 120 125  
 Ala Gln Leu Tyr Met Ala Ala His Gln Pro Gly Lys Ala Leu Thr Tyr  
 130 135 140  
 Tyr Met Arg Leu Arg Asp Pro Cys Val Phe Asp Leu Ile Arg Glu Tyr  
 145 150 155 160  
 Asp Leu Leu Ile Asp Val Gln His His Ile Gly Thr Leu Val Glu Leu  
 165 170 175  
 Asp Gln Glu Cys Ala Gly Ser Thr Glu Pro Arg Ser Ser Ala Leu Met  
 180 185 190  
 Pro Leu Leu Val Pro Tyr Thr His Ser Ile Pro Ile Gln Arg Ala Met  
 195 200 205  
 Ala Gln Leu  
 210

<210> 435  
 <211> 493  
 <212> DNA  
 <213> Homo sapiens

<400> 435  
 nncgtacgtt cgcgtatttt ccgcgcccg gaagctatcg ataataaagt tcaaccgctg  
 60  
 atccagcgtt agcaatggcg ggcacaggaa gggtagcttag gcatgcagaa agaaaagctt  
 120  
 tccgctctga tggatgggtga atcgctcgac agcgagctgt tgagttctct gtcgcaagat  
 180  
 cgaacgcttc aacaaagctg gcagggctat cacctgatac gtgacacact gcgaggtgat  
 240

gtcgggcaag tgatgcatct cgacatcgcc gatcgcgtag ccgctgcact tgagaaagaa  
 300  
 cccgcccggc tgggtgccttc cgccgttcag gaatctcagc cgcagcctca cacctggcag  
 360  
 aaaatgccgt tctgggacaa agtgcgctccc tgggcgagcc agattacgca aatcggtatg  
 420  
 gcggcctgcg tgctgctggc ggtgatcgtc ggctgcagc agtacaacca gccttctgcg  
 480  
 ccatcgaacg cgt  
 493

<210> 436

<211> 130

<212> PRT

<213> Homo sapiens

<400> 436

Met	Gln	Lys	Glu	Lys	Leu	Ser	Ala	Leu	Met	Asp	Gly	Glu	Ser	Phe	Asp
1				5					10					15	
Ser	Glu	Leu	Leu	Ser	Ser	Leu	Ser	Gln	Asp	Arg	Thr	Leu	Gln	Gln	Ser
		20						25					30		
Trp	Gln	Gly	Tyr	His	Leu	Ile	Arg	Asp	Thr	Leu	Arg	Gly	Asp	Val	Gly
		35					40					45			
Gln	Val	Met	His	Leu	Asp	Ile	Ala	Asp	Arg	Val	Ala	Ala	Ala	Leu	Glu
	50					55				60					
Lys	Glu	Pro	Ala	Arg	Leu	Val	Pro	Ser	Ala	Val	Gln	Glu	Ser	Gln	Pro
65					70					75				80	
Gln	Pro	His	Thr	Trp	Gln	Lys	Met	Pro	Phe	Trp	Asp	Lys	Val	Arg	Pro
			85						90					95	
Trp	Ala	Ser	Gln	Ile	Thr	Gln	Ile	Gly	Met	Ala	Ala	Cys	Val	Ser	Leu
		100						105					110		
Ala	Val	Ile	Val	Gly	Val	Gln	Gln	Tyr	Asn	Gln	Pro	Ser	Ala	Pro	Ser
		115				120					125				
Asn	Ala														
	130														

<210> 437

<211> 447

<212> DNA

<213> Homo sapiens

<400> 437

ntggtaaccg gtgtccctga tatggaccct gctgtgtag agcgtaaatt atttatttta  
 60  
 cgtaattatg taacacgcat ctgtttggag tctgttaatg gaattaagga caacttttac  
 120  
 attaatatcat tctcatataa aacaatcggt tataaagggtc agttaaccac tgaacaagtg  
 180  
 ccacaatatt tcttagattt acaaaatcca agtatggtaa cggcattagc gcttggtcat  
 240  
 tcacgtttct caacaaatac atttcctcgt tggcgtttag cacaaccatt ccgttacatc  
 300  
 gtcataatg gcgaaatcaa tacgggttcgc ggtaatatca attggatgaa agcacgtgaa  
 360

gcgttacttg aagctgaatt ttccactcgc tcagaattag atatgttaat gccaatctgt  
420

acggatggta tgtctgactc ggcaagg  
447

<210> 438

<211> 149

<212> PRT

<213> Homo sapiens

<400> 438

Xaa Val Thr Gly Val Pro Asp Met Asp Pro Ala Val Leu Glu Arg Lys  
1 5 10 15  
Leu Phe Ile Leu Arg Asn Tyr Val Thr Arg Ile Cys Leu Glu Ser Val  
20 25 30  
Asn Gly Ile Lys Asp Asn Phe Tyr Ile Asn Thr Phe Ser Tyr Lys Thr  
35 40 45  
Ile Val Tyr Lys Gly Gln Leu Thr Thr Glu Gln Val Pro Gln Tyr Phe  
50 55 60  
Leu Asp Leu Gln Asn Pro Ser Met Val Thr Ala Leu Ala Leu Val His  
65 70 75 80  
Ser Arg Phe Ser Thr Asn Thr Phe Pro Arg Trp Arg Leu Ala Gln Pro  
85 90 95  
Phe Arg Tyr Ile Ala His Asn Gly Glu Ile Asn Thr Val Arg Gly Asn  
100 105 110  
Ile Asn Trp Met Lys Ala Arg Glu Ala Leu Leu Glu Ala Glu Phe Phe  
115 120 125  
Thr Arg Ser Glu Leu Asp Met Leu Met Pro Ile Cys Thr Asp Gly Met  
130 135 140  
Ser Asp Ser Ala Arg  
145

<210> 439

<211> 395

<212> DNA

<213> Homo sapiens

<400> 439

nacgcgtgaa gggagagtgg ggccgagccc caggaggctg tcctgcagca gctgcaccag  
60  
cttcccaggg gccggctgga cctggccacg caaagcctga cggtggagac ctgcagggcc  
120  
ctgggcaagc tgctgccgag ggagacgctg tgcacggagc tggtcctgag tgactgcatg  
180  
ctcagcgagg aaggggccac actgctgctc cgaggcctgt gtgccaacac cgtgctgcgc  
240  
tttctggact taaagggcaa caaccttcgg gctgcagggg ccgaggctct gggaaaactc  
300  
ctccaacaga acaagtccat tcagagcctc acgctggagt ggaacagcct gggcacgtgg  
360  
gacgatgcct tcgccacctt ctgcgggggc ctggc  
395

<210> 440

<211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 440  
 Arg Glu Ser Gly Ala Glu Pro Gln Glu Ala Val Leu Gln Gln Leu His  
 1 5 10 15  
 Gln Leu Pro Arg Gly Arg Leu Asp Leu Ala Thr Gln Ser Leu Thr Val  
 20 25 30  
 Glu Thr Cys Arg Ala Leu Gly Lys Leu Leu Pro Arg Glu Thr Leu Cys  
 35 40 45  
 Thr Glu Leu Val Leu Ser Asp Cys Met Leu Ser Glu Glu Gly Ala Thr  
 50 55 60  
 Leu Leu Leu Arg Gly Leu Cys Ala Asn Thr Val Leu Arg Phe Leu Asp  
 65 70 75 80  
 Leu Lys Gly Asn Asn Leu Arg Ala Ala Gly Ala Glu Ala Leu Gly Lys  
 85 90 95  
 Leu Leu Gln Gln Asn Lys Ser Ile Gln Ser Leu Thr Leu Glu Trp Asn  
 100 105 110  
 Ser Leu Gly Thr Trp Asp Asp Ala Phe Ala Thr Phe Cys Gly Gly Leu  
 115 120 125

<210> 441  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<400> 441  
 gccagtgact acgtgaacat gttcgatgcc gagcagggct tcttcgacag gcgcagccccg  
 60  
 ggcgggcgagt tccaagccgg cttggatccg gaatcctggg gcggtctgtt cactgagacc  
 120  
 gacgggttga acttcgcctt ccacgctcca caggacggcc gggggctggc cgcgctctac  
 180  
 ggcggtccga aaggcttgga gaacaagctc gatgcctttt tcgcgacgcc ggaaaacgcg  
 240  
 gacaagccgg cgtacggcgg aatccacgaa atggtcgagg ccagagcggc ccggatgggc  
 300  
 caattgggca tgccaacga gccctcgac catattccct acatctacaa ctatgccggc  
 360  
 gcgc  
 364

<210> 442  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 442  
 Ala Gln Tyr Tyr Val Asn Met Phe Asp Ala Glu Gln Gly Phe Phe Asp  
 1 5 10 15  
 Arg Arg Ser Pro Gly Gly Glu Phe Gln Ala Gly Leu Asp Pro Glu Ser  
 20 25 30  
 Trp Gly Gly Leu Phe Thr Glu Thr Asp Gly Trp Asn Phe Ala Phe His



```

      35              40              45
Ala Pro Gln Asp Gly Arg Gly Leu Ala Ala Leu Tyr Gly Gly Pro Lys
      50              55              60
Gly Leu Glu Asn Lys Leu Asp Ala Phe Phe Ala Thr Pro Glu Asn Ala
65              70              75              80
Asp Lys Pro Ala Tyr Gly Gly Ile His Glu Met Val Glu Ala Arg Ala
      85              90              95
Val Arg Met Gly Gln Leu Gly Met Ser Asn Glu Pro Ser His His Ile
      100             105             110
Pro Tyr Ile Tyr Asn Tyr Ala Gly Ala
      115             120

```

<210> 443  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

```

<400> 443
accggttacg gctcagtgca acaagagatg ttcgccaaca acctcgtgcg gatgccgctg
60
ctcatgggtgc tggcaatccc cttcgccaag atcctctcga cgaccctgtc catcggtatcg
120
ggcgggtccgg cggcgctcttc cgccctggc atgggtcatcg gcggagccac tggcgcgggca
180
ctgtggcgcc tcctcgaggg gctgccaggt atcccatcct caccgatgag tttcgtcatt
240
gtcggcatga tcgcctgctt cgggtgcggtt gcccatgccc cactcggcgt gctgctcatg
300
gttggcgaga tgaccggaaa cctgtcgctg ctcgctcctg gcatgatcgc cgtcgccgtc
360
gctggccgag ttgtcgggga cacttcgatc tacacctctc agctcaagga tcgcctggag
420
ggcgacgcgt
430

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<210> 444  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

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<400> 444
Thr Gly Tyr Gly Ser Val Gln Gln Glu Met Phe Ala Asn Asn Leu Val
1      5      10      15
Arg Met Pro Leu Leu Met Val Leu Ala Ile Pro Phe Ala Lys Ile Leu
      20      25      30
Ser Thr Thr Leu Ser Ile Gly Ser Gly Gly Pro Ala Ala Ser Ser Gly
      35      40      45
Pro Gly Met Val Ile Gly Gly Ala Thr Gly Ala Ala Leu Trp Arg Leu
      50      55      60
Leu Glu Gly Leu Pro Gly Ile Pro Ser Ser Pro Met Ser Phe Val Ile
65      70      75      80
Val Gly Met Ile Ala Cys Phe Gly Ala Val Ala His Ala Pro Leu Gly
      85      90      95
Val Leu Leu Met Val Gly Glu Met Thr Gly Asn Leu Ser Leu Leu Ala

```

100 105 110  
 Pro Gly Met Ile Ala Val Ala Val Ala Gly Arg Val Val Gly Asp Thr  
 115 120 125  
 Ser Ile Tyr Thr Ser Gln Leu Lys Asp Arg Leu Glu Gly Asp Ala  
 130 135 140

<210> 445  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 445  
 ccatggggct gcctagcctc tggggaggcc cctcagctgg tgacaccagc agggcagatt  
 60  
 tcttgcttta ttgctcacc tgtccagggt tccctctgtt tgtgagggag ctgctgccac  
 120  
 cttgggtcca ggaagcatga agctccgcag gtcagcctcc tgggtgggagg acttttcctt  
 180  
 agttttcttt gctcttctgc tctgagtcga gccctggctg gacctttgat cccttctctc  
 240  
 tttatcagga aattttctga ctttcttctt ttgccttttc aagatctgtg atgccatctc  
 300  
 caagtgggaa caagccatga aggagctgca ccccggaaag tctgaggggtg ggacacgcgt  
 360

<210> 446  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Ala Cys Ser His Leu Glu Met Ala Ser Gln Ile Leu Lys Arg Gln  
 1 5 10 15  
 Lys Lys Lys Val Arg Lys Phe Pro Asp Lys Glu Arg Arg Asp Gln Arg  
 20 25 30  
 Ser Ser Gln Gly Trp Thr Gln Ser Arg Arg Ala Lys Lys Thr Lys Glu  
 35 40 45  
 Lys Ser Ser His Gln Glu Ala Asp Leu Arg Ser Phe Met Leu Pro Gly  
 50 55 60  
 Pro Lys Val Ala Ala Ala Pro Ser Gln Thr Glu Gly Thr Leu Asp Arg  
 65 70 75 80  
 Val Ser Asn Lys Ala Arg Asn Leu Pro Cys Trp Cys His Gln Leu Arg  
 85 90 95  
 Gly Leu Pro Arg Gly  
 100

<210> 447  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 acgcgtgaag ggggaaattg ctctgtgccac ctgaggatta atcattaccc tggaaccctt  
 60

cccaaggcca tcaaggaaca cgcacccctt accagacctt ccagctgctg ggggctctcc  
 120  
 gagtgaggct gaggtcatgg agaaggggaat ggggggcccc catggccagc tggacctgat  
 180  
 cactgcctcc ccactcagcc acagccctca gggccctgtg ccagtccaga agccattca  
 240  
 gggacacctt tggccaatgt tctgtttcat ctgcgaggca accttcccca gtgcccacac  
 300  
 catagcggtt tccccaaac accctcagga aggagggacc actacctgtg cagggggggc  
 360  
 caggagcctc ctgagagcct catatgggga ggaagtggta ccatctcacc cccattgcct  
 420  
 ttctctcta cttccacctg gccagcttcc ctcaagtccc ctccctgcctc agtggccctt  
 480  
 cacgcgt  
 487

<210> 448

<211> 117

<212> PRT

<213> Homo sapiens

<400> 448

Met	Glu	Lys	Gly	Met	Gly	Gly	Pro	His	Gly	Gln	Leu	Asp	Leu	Ile	Thr
1				5					10					15	
Ala	Ser	Pro	Leu	Ser	His	Ser	Pro	Gln	Gly	Pro	Val	Pro	Val	Gln	Lys
			20					25					30		
Pro	Ile	Gln	Gly	His	Leu	Trp	Pro	Met	Phe	Cys	Phe	Ile	Cys	Glu	Ala
		35					40					45			
Thr	Phe	Pro	Ser	Ala	Pro	Thr	Ile	Ala	Phe	Ser	Pro	Lys	His	Pro	Gln
		50				55					60				
Glu	Gly	Gly	Thr	Thr	Thr	Cys	Ala	Gly	Gly	Ala	Arg	Ser	Leu	Leu	Arg
65					70				75					80	
Ala	Ser	Tyr	Gly	Glu	Val	Val	Pro	Ser	His	Pro	His	Cys	Leu	Ser	
			85					90					95		
Leu	Leu	Leu	Pro	Pro	Gly	Gln	Leu	Pro	Ser	Val	Pro	Leu	Leu	Pro	Gln
			100				105						110		
Cys	Pro	Phe	Thr	Arg											
			115												

<210> 449

<211> 353

<212> DNA

<213> Homo sapiens

<400> 449

gagctcagcc agttggagtt tgagaagcgg cagctgcaca gggacttggg gcaggccaag  
 60  
 gagaaggggg agcgggcaga gaagctggag agggagctac agcgactcca ggaggagaac  
 120  
 gggaggctgg ccaggaaggt gacctccctg gagacagcca ccgagaaagt cgaggccctg  
 180  
 gagcatgaga gccagggcct gcagctggag aaccggactc tgaggaagtc tctggacacc  
 240

ttgcagaacg tgtccctgca gcttgagggc ctggagcgtg acaacaagca gctggacgca  
 300  
 gagaacctgg agctgcgcag gctggtggag accatgcgga gacgacaacg cgt  
 353

<210> 450  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 450  
 Glu Leu Ser Gln Leu Glu Phe Glu Lys Arg Gln Leu His Arg Asp Leu  
 1 5 10 15  
 Glu Gln Ala Lys Glu Lys Gly Glu Arg Ala Glu Lys Leu Glu Arg Glu  
 20 25 30  
 Leu Gln Arg Leu Gln Glu Glu Asn Gly Arg Leu Ala Arg Lys Val Thr  
 35 40 45  
 Ser Leu Glu Thr Ala Thr Glu Lys Val Glu Ala Leu Glu His Glu Ser  
 50 55 60  
 Gln Gly Leu Gln Leu Glu Asn Arg Thr Leu Arg Lys Ser Leu Asp Thr  
 65 70 75 80  
 Leu Gln Asn Val Ser Leu Gln Leu Glu Gly Leu Glu Arg Asp Asn Lys  
 85 90 95  
 Gln Leu Asp Ala Glu Asn Leu Glu Leu Arg Arg Leu Val Glu Thr Met  
 100 105 110  
 Arg Arg Arg Gln Arg  
 115

<210> 451  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 451  
 gtgatgcggc tgactaagcc tactttattc accaatatcc cagtaacatg tgaagagaaa  
 60  
 gacttacctg gagatctctt taaccagctg atgagagatg atccttcaac cgtaaatggt  
 120  
 gcagaagttt taatgttggg agaaatgctg actttaccac agaatttttg gaatatattt  
 180  
 ttgggagaga ctttttccag ttatatcagc gttcataatg atagcaatca agttgtaaaa  
 240  
 gacatattag taaaagctga ttttcagaca agttctcagc gtttaaatct ttcagcctcc  
 300  
 aatgctgcag tggtgaact taaaccggat tgttgattg atgatgtcat acatcatgaa  
 360  
 gtcaaagaaa ttggaacaca catcttggtg tgtgctgtga gttatacaac tcaggctgga  
 420  
 gaaaaaatgt atttcagaaa attt  
 444

<210> 452  
 <211> 148  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 452

Val Met Arg Leu Thr Lys Pro Thr Leu Phe Thr Asn Ile Pro Val Thr  
 1 5 10 15  
 Cys Glu Glu Lys Asp Leu Pro Gly Asp Leu Phe Asn Gln Leu Met Arg  
 20 25 30  
 Asp Asp Pro Ser Thr Val Asn Gly Ala Glu Val Leu Met Leu Gly Glu  
 35 40 45  
 Met Leu Thr Leu Pro Gln Asn Phe Gly Asn Ile Phe Leu Gly Glu Thr  
 50 55 60  
 Phe Ser Ser Tyr Ile Ser Val His Asn Asp Ser Asn Gln Val Val Lys  
 65 70 75 80  
 Asp Ile Leu Val Lys Ala Asp Leu Gln Thr Ser Ser Gln Arg Leu Asn  
 85 90 95  
 Leu Ser Ala Ser Asn Ala Ala Val Ala Glu Leu Lys Pro Asp Cys Cys  
 100 105 110  
 Ile Asp Asp Val Ile His His Glu Val Lys Glu Ile Gly Thr His Ile  
 115 120 125  
 Leu Val Cys Ala Val Ser Tyr Thr Thr Gln Ala Gly Glu Lys Met Tyr  
 130 135 140  
 Phe Arg Lys Phe  
 145

&lt;210&gt; 453

&lt;211&gt; 373

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 453

gctagctctg accccacctt tgccaagtgg cactaggggtg gccaatgggg actaggggtg  
 60  
 tataattgga aaatacagtc tcccctgttg tccaagaaag gcccagatg acctggggct  
 120  
 tgaaaggcac tcccgctggg tgcttctgagg gaggcaggtgg ggggcagcgg ggcggcgggg  
 180  
 cctgtctgtg ctgagcatcc ccagctccag ggcaggtgct gggctctgag cccactggt  
 240  
 gcgttttggg atgggctggc ctgcgcggct gtcgtttcag agcacacaga agagaccctg  
 300  
 ccacaggagg agtgggagga gaagctgttg atgttctgc gagacaccct ggccatcatt  
 360  
 tctgacaacg cgt  
 373

&lt;210&gt; 454

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 454

Met Met Ala Arg Val Ser Arg Arg Asn Ile Asn Ser Phe Ser Ser His  
 1 5 10 15  
 Ser Ser Cys Gly Arg Val Ser Ser Val Cys Ser Glu Thr Thr Ala Ala

```

      20      25      30
Gln Ala Ser Pro Ser Gln Asn Ala Pro Val Gly Leu Arg Ala Gln His
      35      40      45
Leu Pro Trp Ser Trp Gly Cys Ser Ala Gln Thr Gly Pro Ala Ala Pro
      50      55      60
Leu Pro Pro Thr Cys Ser Gln Glu Ala Pro Ser Gly Ser Ala Phe Gln
      65      70      75      80
Ala Pro Gly His Leu Gly Pro Phe Leu Asp Asn Arg Gly Asp Cys Ile
      85      90      95
Phe Gln Leu Tyr Asn Pro Ser Pro His Trp Pro Pro
      100      105

```

&lt;210&gt; 455

&lt;211&gt; 602

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 455

```

cctaggcaaa gcatgcccac cctacctccc cttaccctta ccccttcattt tcccctaagc
60
acctatcacc accgatgtta ctgtatgtgt ttgcttacgc tgacagccca ccaccacac
120
tggaatgtcc gcacgacaaa ggcaggactc ttggctgcct tagccacagc tggatcccca
180
gagctttgta ggggtgttggg cacagagtgg agtgggtact taataagtat ctgtggaatg
240
aacatgtaca gagtgaagcc ctgtgcccag aacaggetca aaataagctc aattcctttc
300
cttgccactt actaagtccct tttctctctg cccctctca ctgacctggt tttgatgcca
360
gacagcacag atgggctagg gaggcagggtg gggaagcaga gatctgcgtc tcttggagct
420
ggagctggtg ggtggggctc cttcctggtg ctgcggaggc tcattgggga ggtggcagcg
480
acccctcag gagcctctgt cgctgcact cagatctgtg cctttccaca gcgcccgag
540
gaagacttgc tcaggagata aattcaaaga caacaggaag ctggacgtgg tggctcacgc
600
gt
602

```

&lt;210&gt; 456

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 456

```

Met Pro Thr Leu Pro Pro Leu Thr Leu Thr Leu His Phe Pro Leu Ser
1      5      10      15
Thr His His His Arg Cys Tyr Cys Met Cys Leu Leu Thr Leu Thr Ala
20      25      30
His His Pro His Trp Asn Val Arg Thr Thr Lys Ala Gly Leu Leu Ala
35      40      45
Ala Leu Ala Thr Ala Gly Ser Pro Glu Leu Cys Arg Val Leu Gly Thr

```

50                      55                      60  
 Glu Trp Ser Gly Tyr Leu Ile Ser Ile Cys Gly Met Asn Met Tyr Arg  
 65                      70                      75                      80  
 Val Lys Pro Cys Ala Gln Asn Arg Leu Lys Ile Ser Ser Ile Pro Phe  
                     85                      90                      95  
 Leu Ala Thr Tyr  
                     100

<210> 457  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 457  
 acgcgtcatg tggatattcc tgggagggtc ccaggaacgt ttctggacgg gcccccgacc  
 60  
 agaggtcagg gaacttttct tattattctg cacgtgccca gggatagtca aaccaggtct  
 120  
 tcccccttctg ctggccgcaa cacgccagcc gccgccacga cgcacgctg aattcatgac  
 180  
 ccgacacgcg acgtggcagc gagcacaccc accgctagga gaaagagcgc tcatcgaaga  
 240  
 tcgttttctg tccactggcc agcgccacta tgatcagggtg gggatatccgc cggcgcgcg  
 300  
 gagcaccggg acgccggggc gccg  
 324

<210> 458  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 458  
 Met Trp Ile Phe Leu Gly Gly Ser Gln Glu Arg Phe Trp Thr Gly Pro  
 1                      5                      10                      15  
 Arg Pro Glu Val Arg Glu Leu Phe Leu Leu Phe Cys Thr Cys Pro Gly  
                     20                      25                      30  
 Ile Val Lys Pro Gly Leu Pro Leu Leu Leu Ala Ala Thr Arg Gln Pro  
                     35                      40                      45  
 Pro Pro Arg Pro His Ala Glu Phe Met Thr Arg His Ala Thr Trp Gln  
                     50                      55                      60  
 Arg Ala His Pro Pro Leu Gly Glu Arg Ala Leu Ile Glu Asp Arg Phe  
 65                      70                      75                      80  
 Leu Ser Thr Gly Gln Arg His Tyr Asp Gln Val Gly Tyr Pro Pro Gly  
                     85                      90                      95  
 Gly Gly Ser Thr Gly Thr Pro Gly Arg  
                     100                      105

<210> 459  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 459





<210> 462  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 462  
 Thr Arg Ser Arg Ser Ala Lys Phe Ile Met Arg Thr Thr Lys Arg Val  
 1 5 10 15  
 Val Ala His Asn Arg Val Thr Cys Met Met Thr Lys Thr Gly Arg Ile  
 20 25 30  
 Glu Leu Met Ser Ser Arg Leu Pro Ala Pro Arg Thr Ser Ser Glu Ser  
 35 40 45  
 Pro Gly Val Gly Thr Val Glu Thr Gln Tyr Thr Thr Val Ala Ile Pro  
 50 55 60  
 Asp Asp Pro Leu His Leu Val Ala Asp Gly Arg Leu Asn His Val Thr  
 65 70 75 80  
 Val Ala Tyr Glu Thr Tyr Gly Lys Leu Asn Thr Ser Ser Asp Asn Ala  
 85 90 95  
 Val Tyr Thr Cys His Ala Leu Thr Gly Asp Ala His Ala Ala Gly Phe  
 100 105 110  
 His Pro Gly Val Val Arg Pro  
 115

<210> 463  
 <211> 434  
 <212> DNA  
 <213> Homo sapiens

<400> 463  
 gtgcacgggg tatgcgaggg atgcggcatt gccaccaatg ccgctgacct gcgcagatac  
 60  
 gaggcagctg gtgacgatga agtgggtgcga tgcgaggaat gcgatcgtat cctgggtgcgt  
 120  
 accggagagt ccatctgagc ccttcttgtg gcggtgatgc cgggatatcc gtagaattag  
 180  
 cggtcggacg agccatccgg gtgatcgcgg cagcgggtgag ttgtcgagga aagtcggggc  
 240  
 tccatagagc aggggtgttg gtaacgcccc cccgggggtga cccgcgggaa agtgccacag  
 300  
 agaacagact gccgggttctg agccgggtgag ggtgaaacgg tggagtaagt gcccaccgcg  
 360  
 tcatcggtga cggtgacggc atggcaaacc ccacctggag caaggccaag aagaccgtga  
 420  
 ggtcgcggac gcgt  
 434

<210> 464  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 464  
 Met Pro Ser Pro Ser Pro Met Thr Arg Trp Ala Leu Thr Pro Pro Phe

```

      1             5             10             15
His Pro His Arg Leu Glu Thr Gly Ser Leu Phe Ser Val Ala Leu Ser
      20             25             30
Arg Gly Ser Pro Arg Val Gly Val Thr His His Pro Ala Leu Trp Ser
      35             40             45
Pro Asp Phe Pro Arg Gln Leu Thr Ala Ala Ala Ile Thr Arg Met Ala
      50             55             60
Arg Pro Thr Ala Asn Ser Thr Asp Ile Pro Ala Ser Pro Pro Gln Glu
      65             70             75             80
Gly Leu Arg Trp Thr Leu Arg Tyr Ala Pro Gly Tyr Asp Arg Ile Pro
      85             90             95
Arg Ile Ala Pro Leu His Arg His Gln Leu Pro Arg Ile Cys Ala Gly
      100            105            110
Gln Arg His Trp Trp Gln Cys Arg Ile Pro Arg Ile Pro Arg Ala
      115            120            125

```

<210> 465  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

```

<400> 465
gatcatttag aatttatgga agaagctgat gtgaaagcta tggtaaatac tggcactgtg
60
gctgtattgc taccaggagc attttacacc ttgaaagaaa ctcaacttcc accgatgaat
120
ttgttacgtc agtacggagt agacattgct atttcgacgg atgctaatacc agggacgtcg
180
ccagcggtat cattacgggt aatgatgaat atggcatgta ccttggttgg tatgacacct
240
gaaaccgccc ttgcaggggt aacaattcat gcggcaaaaag cggtggggat tagcgattct
300
catggcactt tagaagtgtg caaggtagct gattttgtct gctgggatgt ggaaagcccc
360
ggtgaacttt gttattggtt aggagagcag ttagtaaagc aacgtattca gcacggagta
420
tcccatgaat aatctaga
438

```

<210> 466  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

```

<400> 466
Asp His Leu Glu Phe Met Glu Glu Ala Asp Val Lys Ala Met Val Lys
      1             5             10             15
Ser Gly Thr Val Ala Val Leu Leu Pro Gly Ala Phe Tyr Thr Leu Lys
      20             25             30
Glu Thr Gln Leu Pro Pro Met Asn Leu Leu Arg Gln Tyr Gly Val Asp
      35             40             45
Ile Ala Ile Ser Thr Asp Ala Asn Pro Gly Thr Ser Pro Ala Leu Ser
      50             55             60
Leu Arg Leu Met Met Asn Met Ala Cys Thr Leu Phe Gly Met Thr Pro

```

```

65          70          75          80
Glu Thr Ala Leu Ala Gly Val Thr Ile His Ala Ala Lys Ala Leu Gly
          85          90          95
Ile Ser Asp Ser His Gly Thr Leu Glu Val Gly Lys Val Ala Asp Phe
          100          105          110
Val Cys Trp Asp Val Glu Ser Pro Gly Glu Leu Cys Tyr Trp Leu Gly
          115          120          125
Glu Gln Leu Val Lys Gln Arg Ile Gln His Gly Val Ser His Glu
          130          135          140

```

<210> 467  
 <211> 460  
 <212> DNA  
 <213> Homo sapiens

```

<400> 467
ntttccctgg ctattggcca tgtgggacac aacgttccgc ctaccccaga gcggttaagc
60
tgcacccctg caccttcttc tcccaccgct tcaaagccac agtgaggaac ttcggagctt
120
ctcgcagtga agatggcggt ggaggaatgg atgccttggc tagaagaggc ggaatatctg
180
ttgattgtgt ggaccgacca caaaaacctg gagtatctcc acacaaccaa gtgcctcaac
240
tccaggcaag caagaagggc ccagctgttt acctgggtcc acttttccct ctccctaccg
300
ccgggggtcca agaacatcag gctggatgcc ctttcttgcc actttatggg catgggcccc
360
ttctccagg cttgcctgtc acccgggctc ccgtcaaacc ctggccttcg tgcgacaaca
420
ctcttggtgc cttctatggt tctgtatggt gccgcaattg
460

```

<210> 468  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 468
Gly Thr Ser Glu Leu Ala Val Lys Met Ala Leu Glu Glu Trp Met
1          5          10          15
Pro Trp Leu Glu Glu Ala Glu Tyr Leu Leu Ile Val Trp Thr Asp His
          20          25          30
Lys Asn Leu Glu Tyr Leu His Thr Thr Lys Cys Leu Asn Ser Arg Gln
          35          40          45
Ala Arg Arg Ala Gln Leu Phe Thr Trp Phe His Phe Ser Leu Ser Tyr
          50          55          60
Arg Pro Gly Ser Lys Asn Ile Arg Leu Asp Ala Leu Ser Cys His Phe
65          70          75          80
Met Gly Met Gly Pro Phe Leu Gln Ala Cys Leu Ser Pro Gly Leu Pro
          85          90          95
Ser Asn Pro Gly Leu Arg Ala Thr Thr Leu Leu Val Pro Ser Met Val
          100          105          110
Leu Tyr Val Ala Ala Ile

```

115

<210> 469  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 469  
 cttgtgcaca cggtattttt ccaatacaaa tagtttaaaa agtaaaactcc aaatacctat  
 60  
 aagccccctc aaagcacctt ccaaatatga accttggttaa tgcccaaggt ccagaggggt  
 120  
 cccccagaaa ggcccaggag cctggggcat gggaaagctg tcgggggtccc catgctgact  
 180  
 ccctggactc caagcgatat tccataaagc cagggcctcc tggctgcggg agggaggcct  
 240  
 tgacccaaaa tccattcggc cctggatact ggagaggcag aggcctctgc tgatgagaag  
 300  
 ccctgagttc ctggctagct gtggttaacc acaaaaaatg cgggggggtga tgattttcga  
 360  
 agtccatcgg caaagaaaga c  
 381

<210> 470  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 470  
 Met Asp Phe Glu Asn His His Pro Pro His Phe Leu Trp Leu Thr Thr  
 1 5 10 15  
 Ala Ser Gln Glu Leu Arg Ala Ser His Gln Gln Arg Pro Leu Pro Leu  
 20 25 30  
 Gln Tyr Pro Gly Pro Asn Gly Phe Trp Val Lys Ala Ser Leu Pro Gln  
 35 40 45  
 Pro Gly Gly Pro Gly Phe Met Glu Tyr Arg Leu Glu Ser Arg Glu Ser  
 50 55 60  
 Ala Trp Gly Pro Arg Gln Leu Ser His Ala Pro Gly Ser Trp Ala Phe  
 65 70 75 80  
 Leu Gly Asp Pro Ser Gly Pro Trp Ala Leu Thr Arg Phe Ile Phe Gly  
 85 90 95  
 Arg Cys Phe Glu Gly Ala Tyr Arg Tyr Leu Glu Phe Thr Phe  
 100 105 110

<210> 471  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 471  
 accggtgact acctgcagca ctggattgac atgggttaaaa agggcggcga ccgcatgcc  
 60  
 gaggtcttcc tgggttaactg gtcccgccgc ggcgacgatg gccgcttcct gtggccgngg  
 120

cttggcgaaa acttcccggg cctanagtgg atcatcgacc gcattgaagg caacgtagag  
 180  
 gccgaggaca cgggtggtcgg acgcaccgcc cgcgccgagg acatcgactt gcaaggcctt  
 240  
 gacttcgatg tcgacgacgt tcgcgccgca ctgcgcgttg acccgaagga atgggaaggc  
 300  
 gatatgcaag acaacgccga gtacctgaac ttcttgggct cccgcgtgcc cgaggaagtg  
 360  
 tggaaccagt tccgcgcc  
 378

<210> 472  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 472  
 Thr Gly Asp Tyr Leu Gln His Trp Ile Asp Met Gly Lys Lys Gly Gly  
 1 5 10 15  
 Asp Arg Met Pro Glu Val Phe Leu Val Asn Trp Phe Arg Arg Gly Asp  
 20 25 30  
 Asp Gly Arg Phe Leu Trp Pro Xaa Leu Gly Glu Asn Phe Pro Val Leu  
 35 40 45  
 Xaa Trp Ile Ile Asp Arg Ile Glu Gly Asn Val Glu Ala Glu Asp Thr  
 50 55 60  
 Val Val Gly Arg Thr Ala Arg Ala Glu Asp Ile Asp Leu Gln Gly Leu  
 65 70 75 80  
 Asp Phe Asp Val Asp Asp Val Arg Ala Ala Leu Ala Val Asp Pro Lys  
 85 90 95  
 Glu Trp Glu Gly Asp Met Gln Asp Asn Ala Glu Tyr Leu Asn Phe Leu  
 100 105 110  
 Gly Ser Arg Val Pro Glu Glu Val Trp Asn Gln Phe Arg Ala  
 115 120 125

<210> 473  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 473  
 accggttggt gggggaaggg acccatccca tgccacctgt cctagaaaaat gtttcccctt  
 60  
 gttgagcagc tgctggatct agggctgctg ggtctaagtc caaaaaggga aaaaggaaaa  
 120  
 aggcaccaag taaaagaagg gggaagctgc caaaaccccc cctgccaaaa ctctcccacc  
 180  
 ctgcttccat ttcctcttcc agggaacagg tgtacctccc ctctccctg tcctctcag  
 240  
 atgccccagg ggctctctac ttcattcctg ccgacctgac caggagtggc ctcaggggta  
 300  
 gaggtccta gttggagaat ttgcttcgag gaaggtgaa  
 339

<210> 474

<211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 474  
 Met Phe Pro Leu Val Glu Gln Leu Leu Asp Leu Gly Leu Leu Gly Leu  
 1 5 10 15  
 Ser Pro Lys Arg Glu Lys Gly Lys Arg His Gln Val Lys Glu Gly Gly  
 20 25 30  
 Ser Cys Gln Asn Pro Pro Cys Gln Asn Ser Pro Thr Leu Leu Pro Phe  
 35 40 45  
 Pro Ser Pro Gly Asn Arg Cys Thr Ser Pro Pro Pro Cys Pro Pro Gln  
 50 55 60  
 Met Pro Gln Gly Leu Ser Thr Ser Phe Leu Pro Thr Leu Pro Gly Val  
 65 70 75 80  
 Ala Ser Gly Val Glu Ala Pro Ser Trp Arg Ile Cys Leu Gln Glu Gly  
 85 90 95  
 Glu

<210> 475  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 475  
 acgcgtgaag ggtccctcc aaactctgag cctccttcca agccttgctg ggagctcccc  
 60  
 agcgctgccc ggagaggcct ctctccagg cgggcttccc gcgccgatgt gaaggagagg  
 120  
 ctgccccaga ggggtctgga tcgtaatcca gaaagggaca gtccacagc cataatcccc  
 180  
 aatgctggga ctcttcagta aaggaagaga tggcttttgc gttcatctgc ctttctgaaa  
 240  
 ggtaaaatat ctccagatcc gggctctctg ggcgactgag tatgtggggg tccctgaagc  
 300  
 ctttgatgga tcttgtaga agtgggttgt tcatcttggg gtttt  
 345

<210> 476  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 476  
 Met Asn Asn Pro Leu Leu Thr Arg Ser Ile Lys Gly Phe Arg Asp Pro  
 1 5 10 15  
 His Ile Arg Ser Arg Pro Glu Ser Pro Asp Leu Glu Ile Phe Tyr Leu  
 20 25 30  
 Ser Glu Arg Gln Met Asn Glu Lys Ala Ile Ser Ser Phe Thr Glu Glu  
 35 40 45  
 Ser Gln His Ser Gly Leu Trp Leu Trp Asp Cys Pro Phe Leu Asp Tyr  
 50 55 60  
 Asp Pro Asp Pro Ser Gly Ala Ala Ser Pro Ser His Arg Arg Gly Lys

```

65              70              75              80
Pro Ala Trp Arg Arg Gly Leu Ser Gly Arg Arg Trp Gly Ala Pro Ser
              85              90              95
Lys Ala Trp Lys Glu Ala Gln Ser Leu Glu Gly Thr Leu His Ala
              100              105              110

```

<210> 477  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

```

<400> 477
acgcgtggcc gagccagcgt gctcaaggaa atgggtcaacg gcactcttat taacggctgg
60
gactctcccc aggtggaacg ggcactggac ctgtgcatgg cgtgcaaagg gtgcgcccga
120
gattgccccca ccggaatcga catggccagc taccgcagca cggttcttga cgaaaaatac
180
cgtcaccgtc tccgccctcg ctcccacctg acgatggggc tgctgcccac gtgggaacgt
240
ttgctcaatc ggaccccagg agcgcctcg ctggctaacg cagtgtttc gatgccggtc
300
ttcgcacgtc ttgctagatg gacagccggg gtggatcagc gtcgtcccct ccccgattc
360
cagccctcgg ccagattggc cagtccgcag gccgccccgg ttaaggagat tgtggcggat
420
cc
422

```

<210> 478  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 478
Thr Arg Gly Arg Ala Ser Val Leu Lys Glu Met Val Asn Gly Thr Leu
1              5              10              15
Ile Asn Gly Trp Asp Ser Pro Glu Val Glu Arg Ala Leu Asp Leu Cys
              20              25              30
Met Ala Cys Lys Gly Cys Ala Arg Asp Cys Pro Thr Gly Ile Asp Met
              35              40              45
Ala Ser Tyr Arg Ser Thr Val Leu Asp Glu Lys Tyr Arg His Arg Leu
50              55              60
Arg Pro Arg Ser His Leu Thr Met Gly Leu Leu Pro Met Trp Glu Arg
65              70              75              80
Leu Leu Asn Arg Thr Pro Gly Ala Pro Ser Leu Ala Asn Ala Val Leu
              85              90              95
Ser Met Pro Val Phe Ala Arg Leu Ala Arg Trp Thr Ala Gly Val Asp
100              105              110
Gln Arg Arg Pro Leu Pro Arg Phe Gln Pro Ser Ala Arg Leu Ala Ser
115              120              125
Pro Gln Ala Ala Pro Val Lys Glu Ile Val Ala Asp
130              135              140

```

<210> 479  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 479  
 cgcgtggcca ttggccgggc gctggtgcgg caccgcgac tggtgattgc cgatgagccg  
 60  
 atctcggcgt tggacatgac catccagaag cagattcttg agctgttcga gcgcctgcag  
 120  
 gcgcagtacg gctttgcttg cctgttcata tcccacgacc tggcagcggg ggaacgcata  
 180  
 gccccaccggg tggcggatgat gagcgagggc aggggtggtgg aaatgggtgc ccgcgacgag  
 240  
 atcttcgacc gcccgagca cccctacacc cgcaagctgc tggccgcgcg cagccccctg  
 300  
 gagaaacttg aaaacggtgg ctaccgcata cggcagggcc ccgtaccg  
 348

<210> 480  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 480  
 Arg Val Ala Ile Gly Arg Ala Leu Val Arg His Pro Arg Leu Val Ile  
 1 5 10 15  
 Ala Asp Glu Pro Ile Ser Ala Leu Asp Met Thr Ile Gln Lys Gln Ile  
 20 25 30  
 Leu Glu Leu Phe Glu Arg Leu Gln Ala Gln Tyr Gly Phe Ala Cys Leu  
 35 40 45  
 Phe Ile Ser His Asp Leu Ala Ala Val Glu Arg Ile Ala His Arg Val  
 50 55 60  
 Ala Val Met Ser Glu Gly Arg Val Val Glu Met Gly Ala Arg Asp Glu  
 65 70 75 80  
 Ile Phe Asp Arg Pro Gln His Pro Tyr Thr Arg Lys Leu Leu Ala Ala  
 85 90 95  
 Ala Ser Pro Leu Glu Lys Leu Glu Asn Gly Gly Tyr Arg Ile Arg Gln  
 100 105 110  
 Gly Pro Val Pro  
 115

<210> 481  
 <211> 441  
 <212> DNA  
 <213> Homo sapiens

<400> 481  
 aagcttctga ctgtggcatt ctccctgctt aatatgtcct caatatcccc tacttactgg  
 60  
 gcaaaatcct gcttatgctt tgggactagc tcaaagacca ctcccttgga tgggtgccttc  
 120  
 cctgccctgc cggtctgcgc tggcttcctc agtggttagga ttaccatcac attgcatcat  
 180



gagagcagaa gaccatctcc atgtgactgc tgcccttgc tccagcaggg cccacaanca  
 240  
 cccagtcacag gacctggctc acgctgggtg gcggatgccc aggaatgggg ctctggatct  
 300  
 gcctcttctc ctgcaggacc aggaaaccgc tgccctgtcc ctgcccagg aaaccctcag  
 360  
 taaatcccca gtcatttgag tttccctca gcgccagaga ccaataacac atctccacca  
 420  
 acctgaaaaa ccttcacgcg t  
 441

<210> 482

<211> 120

<212> PRT

<213> Homo sapiens

<400> 482

Lys	Leu	Leu	Thr	Val	Ala	Phe	Ser	Leu	Leu	Asn	Met	Ser	Ser	Ile	Ser
1				5					10					15	
Pro	Thr	Tyr	Trp	Ala	Lys	Ser	Cys	Leu	Cys	Phe	Gly	Thr	Ser	Ser	Lys
			20					25					30		
Thr	Thr	Pro	Leu	Asp	Gly	Ala	Phe	Pro	Ala	Leu	Pro	Ala	Cys	Ala	Gly
		35					40					45			
Phe	Leu	Ser	Val	Arg	Ile	Thr	Ile	Thr	Leu	His	His	Glu	Ser	Arg	Arg
	50					55					60				
Pro	Ser	Pro	Cys	Asp	Cys	Cys	Pro	Cys	Ser	Gln	Gln	Gly	Pro	Gln	Xaa
65				70					75					80	
Pro	Ser	Pro	Gly	Pro	Gly	Ser	Arg	Trp	Val	Ala	Asp	Ala	Gln	Glu	Trp
			85					90					95		
Gly	Ser	Gly	Ser	Ala	Ser	Ser	Pro	Ala	Gly	Pro	Gly	Asn	Arg	Cys	Pro
			100					105					110		
Val	Pro	Ala	Pro	Gly	Asn	Pro	Gln								
		115					120								

<210> 483

<211> 330

<212> DNA

<213> Homo sapiens

<400> 483

acgcgttcac tccctgatgg ccacgcacga gctaaccggag ggatggggcg aagggaaggc  
 60  
 caagggttgc tcgaagacca aggagtgtgc agggcaggac ctcgttttaa aggaatatcc  
 120  
 tctcaccaga gacacgcggc ggccaggcag ggccggagcg gggcctgtgc ccaggctccg  
 180  
 agcgtctgcc cagcccagca tccctgtccc cagccaggaa tatgtcttcg tggcatagag  
 240  
 ggagctcttg gagccacacc tgcgtgtgca catgtgtcac cccactgctg ggaggggctc  
 300  
 tcccgggacc ctgcagcgtg ggctgggccc  
 330

<210> 484

<211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 484  
 Met Gly Arg Arg Glu Gly Gln Gly Cys Leu Glu Asp Gln Gly Val Cys  
 1 5 10 15  
 Arg Ala Gly Pro Arg Phe Lys Gly Ile Ser Ser His Gln Arg His Ala  
 20 25 30  
 Ala Ala Arg Gln Gly Arg Ser Gly Ala Cys Ala Gln Ala Pro Ser Val  
 35 40 45  
 Cys Pro Ala Gln His Pro Cys Pro Gln Pro Gly Ile Cys Leu Arg Gly  
 50 55 60  
 Ile Glu Gly Ala Leu Gly Ala Thr Pro Ala Cys Ala His Val Ser Pro  
 65 70 75 80  
 His Cys Trp Glu Gly Leu Ser Arg Asp Pro Ala Ala Trp Ala Gly Pro  
 85 90 95

<210> 485  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 485  
 acgcgtgctc gcgcggacga agtcggcgct gatcgcccag tcatgcgccc tgcccgtgcc  
 60  
 gcccagttcg gcgatcgccg cattcgcccg gccggaatcg agaaggaatg cgtggacgta  
 120  
 cgggggatac caaaggaatc ttgtcgaggg cttcgcggcc ctcgacgtgg atcacctgta  
 180  
 cccgacggac gtgggggaagc cgtcccgcga gctcacggga ctccgcgaca tcgatgtgcg  
 240  
 atacgatttg caccgtcgtc ggctgctgtc gcgacacatg ctccgcgate gcctcagcgg  
 300  
 tgggtttccga cgtcagcagg aacgtggcga cgggtggcat ggcggtcgcc gttatgtcgg  
 360  
 cattcccatt cctcggg  
 377

<210> 486  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 486  
 Met Arg Pro Ala Arg Ala Ala Gln Phe Gly Asp Arg Arg Ile Arg Pro  
 1 5 10 15  
 Ala Gly Ile Glu Lys Glu Cys Val Asp Val Arg Gly Ile Pro Lys Glu  
 20 25 30  
 Ser Cys Arg Gly Leu Arg Gly Pro Arg Arg Gly Ser Pro Val Pro Asp  
 35 40 45  
 Gly Arg Gly Glu Ala Val Pro Gln Ala His Gly Thr Pro Arg His Arg  
 50 55 60  
 Cys Ala Ile Arg Phe Ala Pro Ser Ser Ala Ala Cys Ala Thr His Ala

```

65          70          75          80
Pro Arg Ser Pro Gln Arg Trp Phe Pro Thr Ser Ala Gly Thr Trp Arg
          85          90          95
Arg Val Ala Trp Arg Ser Pro Leu Cys Arg His Ser His Ser Ser
          100          105          110

```

<210> 487  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

```

<400> 487
nnacgcgtaa gatcgattgt ggatcagcac cgatgctggg cccccgcagc ttgttggttg
60
cgggtggttg tgtaaggagt gtgtgtgatg cgtgttggtg ttcctactga ggtaagaat
120
agtgaagttc gtgtggctgt gacgccggcg ggtgttcacg cgttggttg tctgggtcat
180
gaggtggttg ttcaggctgg tgctgggtg ggttcgggta ttccggattc ggattttgtg
240
ggtgctggtg cgcgggttgt ggggtgatgt gagtcggtgt ggggtgatgc tgatttggtg
300
ttgaagggtga aggagcctgt tgcggaggag tatgggcggg tgcattgagg tttggttctt
360
tttacgtatc ttcatttggc tgctgatgag gcgttgactc gtgagctttt ggggcgtggg
420
gtgacgtcga ttgcgtatga gacggtggag ttggccgat
459

```

<210> 488  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

```

<400> 488
Met Arg Val Gly Val Pro Thr Glu Val Lys Asn Ser Glu Phe Arg Val
1          5          10          15
Ala Val Thr Pro Ala Gly Val His Ala Leu Val Gly Arg Gly His Glu
20          25          30
Val Leu Val Gln Ala Gly Ala Gly Val Gly Ser Gly Ile Pro Asp Ser
35          40          45
Asp Phe Val Gly Ala Gly Ala Arg Val Val Gly Asp Val Glu Ser Val
50          55          60
Trp Gly Asp Ala Asp Leu Val Leu Lys Val Lys Glu Pro Val Ala Glu
65          70          75          80
Glu Tyr Gly Arg Leu His Glu Gly Leu Val Leu Phe Thr Tyr Leu His
85          90          95
Leu Ala Ala Asp Glu Ala Leu Thr Arg Glu Leu Leu Gly Arg Gly Val
100          105          110
Thr Ser Ile Ala Tyr Glu Thr Val Glu Leu Ala Asp
115          120

```

<210> 489  
 <211> 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 489

nacgcgtttg gcgtactgag tgcggtggtg gatggcgacg acagtggcaa gccgctgctc  
 60  
 aaccagcacg gttgctacaa agtgcgcttt ccatttacct gcgatcaaaa gcccgacct  
 120  
 cgggggttcgg catggctgcg caggggtgctg ttgtctgccg gttccagcca tggcatgcac  
 180  
 tttccgctgc tcaaaggcag tgaagtgttg gtgtcatttc tggggggcga ccccgaccgg  
 240  
 ccgattatcg ttgctgctg accaaactcg gaaaccccg gcatggctcg tgagcgtaac  
 300  
 gccaccacaga gcggcttctc caccggccga gggcacttcc tggcgatgga agaccacccc  
 360  
 ggggctgccc atctgaagct gggctgcgct ggcggaaca gcgtcttcac actgggcaat  
 420  
 ggcaaagtcg ccggcgcgca actgcgcacc aacgccccac atgcaattga catcgtcttc  
 480  
 gctcaaacac gaagtgcccg gcgtgtactc attgtcgatg ggcaccgggg acccgcgggc  
 540  
 cg  
 542

&lt;210&gt; 490

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 490

Xaa Ala Phe Gly Val Leu Ser Ala Val Val Asp Gly Asp Asp Ser Gly  
 1 5 10 15  
 Lys Pro Leu Leu Asn Gln His Gly Cys Tyr Lys Val Arg Phe Pro Phe  
 20 25 30  
 Thr Arg Asp Gln Lys Pro Ser Thr Arg Gly Ser Ala Trp Leu Arg Arg  
 35 40 45  
 Val Ser Leu Ser Ala Gly Ser Ser His Gly Met His Phe Pro Leu Leu  
 50 55 60  
 Lys Gly Ser Glu Val Leu Val Ser Phe Leu Gly Gly Asp Pro Asp Arg  
 65 70 75 80  
 Pro Ile Ile Val Gly Cys Val Pro Asn Ser Glu Thr Pro Ser Met Val  
 85 90 95  
 Val Glu Arg Asn Ala Thr Gln Ser Gly Phe Ser Thr Ala Gly Gly His  
 100 105 110  
 Phe Leu Ala Met Glu Asp His Pro Gly Ala Ala His Leu Lys Leu Gly  
 115 120 125  
 Ala Pro Gly Gly Asn Ser Val Phe Thr Leu Gly Asn Gly Lys Val Ala  
 130 135 140  
 Gly Ala Gln Leu Arg Thr Asn Ala Pro His Ala Ile Asp Ile Val Phe  
 145 150 155 160  
 Ala Gln Thr Arg Ser Ala Arg Arg Val Leu Ile Val Asp Gly His Arg  
 165 170 175  
 Gly Pro Gly Gly

180

<210> 491  
 <211> 825  
 <212> DNA  
 <213> Homo sapiens

<400> 491  
 nacgcgtcga ggcgacggtc ggcgccgtca tggcgactgt tctcgagggc acatgggaac  
 60  
 gcatcggtgc cggattccgg actgccttaa ccacagcctt ggaacgcacc gatgaatggg  
 120  
 tggggcgccc tgacagcaag cccctcaacg aagtcgagac actgcgccgg tgcgccgatg  
 180  
 aactcatcgg cgggcccgtc ggcgcggttg ccgcgatgca cggaggggtca atcgaattgg  
 240  
 tcgacgtgtc ggtcgggtgac gaagagcgca gagtcgacgt caccatgaag ggagcatgcc  
 300  
 gaggttgccc ggcagccatc agaccctaca tcagcgctg gaacatcaac tgagtctgcg  
 360  
 nattgcgcga gccggtcacc gtgcgggaaa tctgacacct actccgacag ctccacctcg  
 420  
 acgagcact ccacgacgag gccaaagccac tcgtagacgc attcctcttc ggcattccat  
 480  
 tcctcccggg ccgcccagac gacttcgtcg gcagtaacct ggtcgatgat ccctagcctg  
 540  
 gcggccatca tgccacgcag cgcattgaca gtacgaagcc aacgttgctg catcacaggg  
 600  
 ttcattggaga tacagccggg tcggtgcaac gtctccacat cagcacttaa ggactgagcg  
 660  
 tcttcccagc gcgcgcgac atcctcggcg tcatgggtga catggaattg cgcgtcagct  
 720  
 gagtcgtcgt cactgataggc gctgggcagg atcaatcgac gcacctcgtc gtctctctgg  
 780  
 agtccagaaa actggctctc ccaaaaagcg aacgggtccc cctcc  
 825

<210> 492  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 492  
 Met Asn Gly Trp Ala Ala Leu Thr Ala Ser Pro Ser Thr Lys Ser Arg  
 1 5 10 15  
 His Cys Ala Gly Ala Pro Met Asn Ser Ser Ala Gly Pro Ser Ala Arg  
 20 25 30  
 Leu Pro Arg Cys Thr Glu Gly Gln Ser Asn Trp Ser Thr Cys Arg Ser  
 35 40 45  
 Val Thr Lys Ser Ala Glu Ser Thr Ser Pro  
 50 55

<210> 493  
 <211> 863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 493

nacgcgttcc aacctcgtca aaacggctat cgcaggaaat gaccccaact ggggtcgcac  
 60  
 cctcgcggcg atcggatgtg ttcttgagaa tatagctccc ttcgatcccg accaggtgga  
 120  
 tgtgtccatc aatgacattc agatctgtaa ggccgggggt atcggggagg accgcaacct  
 180  
 cgtcgatatg aggccacgag aggttcacat cgatattgag ctgcatgcgg gtgatgccga  
 240  
 agctgcggta tggactaatg atctgacca ccaatacgtc gaagagaata gcgcgtatac  
 300  
 atcatgaccc ttgtctctga catccccctc aacgactccc agttctcggc tcagcggaaa  
 360  
 tctgaggtcc tggtagaagc gctgccttgg atcaggcggg ttcagggccg cactgtcgtc  
 420  
 gtgaaatatg gcggcaacgc gatggttgat cccggtctgc agcaggcctt cgccgacgac  
 480  
 attgtgttta tggcctctgt ggggattcgc cctattgtcg tccacgggtg tggccctcag  
 540  
 atcaatgcca tgcttgctga atccgctacc ccggtggagt tccgtaatgg tttgcgggtg  
 600  
 acatctccgg aggtcatgga ggttgctcgg atggtgctcg tcgggcagggt gggccgctcag  
 660  
 ctcgtaacc gaatcaacgc ctatgcgccg ctacgagctg gcatgtcagg cgaggacttt  
 720  
 ggcctttttt cgccccgga gtcgcgggta attgttgatg gcgagcaa at agacatgggt  
 780  
 ttagtgggag acatcggtta cgtcaacatc gatctcgta tctctatgct tgatcgcggg  
 840  
 cagattccgg tcattgcacc ggt  
 863

&lt;210&gt; 494

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 494

Met Thr Leu Ala Leu Asp Ile Pro Leu Asn Asp Ser Gln Phe Ser Ala  
 1 5 10 15  
 Gln Arg Lys Ser Glu Val Leu Val Glu Ala Leu Pro Trp Ile Arg Arg  
 20 25 30  
 Phe Gln Gly Arg Thr Val Val Val Lys Tyr Gly Gly Asn Ala Met Val  
 35 40 45  
 Asp Pro Gly Leu Gln Gln Ala Phe Ala Asp Asp Ile Val Phe Met Ala  
 50 55 60  
 Ser Val Gly Ile Arg Pro Ile Val Val His Gly Gly Gly Pro Gln Ile  
 65 70 75 80  
 Asn Ala Met Leu Ala Glu Ser Ala Thr Pro Val Glu Phe Arg Asn Gly  
 85 90 95  
 Leu Arg Val Thr Ser Pro Glu Val Met Glu Val Val Arg Met Val Leu

```

      100      105      110
Val Gly Gln Val Gly Arg Gln Leu Val Asn Arg Ile Asn Ala Tyr Ala
      115      120      125
Pro Leu Ala Ala Gly Met Ser Gly Glu Asp Phe Gly Leu Phe Ser Ala
      130      135      140
Arg Lys Ser Arg Val Ile Val Asp Gly Glu Gln Ile Asp Met Gly Leu
      145      150      155      160
Val Gly Asp Ile Val Asp Val Asn Ile Asp Leu Val Ile Ser Met Leu
      165      170      175
Asp Arg Gly Gln Ile Pro Val Ile Ala Pro
      180      185

```

<210> 495  
 <211> 514  
 <212> DNA  
 <213> Homo sapiens

```

<400> 495
gcgcgcgaca ccggtgcccc gattagcgtg ccagtgggtg acgtcactaa gggtcacgtc
60
tggaatgtga caggtgacgt tcttaacgcc ngatccctcc acaatcgagg tgacnntgag
120
cgttggccga tccaccggga tccccgggcc ttcgatgacc ttgagcccgga gaccgagatg
180
ctggagaccg gtattaaggt ccttgacttg ctgactcctt acgtcaaggg cggaagatt
240
ggcctctttg gcggcgctgg tgtgggtaag acggtgctca ttcaggagat gatttaccgt
300
atcgcccaca acttcggcgg tacttcgggt ttcgccggtg tcggtgagcg taccgcgag
360
ggtaacgacc tcatcaacga gatggacgag gccggtgtgc tcaaagacac cgccctggt
420
ttcggccaga tggacgagcc cccgggcacg cggtagcagc tgtcgcgctg gcagccctgc
480
ggcccatgcc tggtaactg ctgtgggacc ttgg
514

```

<210> 496  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

```

<400> 496
Ala Arg Asp Thr Gly Ala Pro Ile Ser Val Pro Val Gly Asp Val Thr
1      5      10      15
Lys Gly His Val Trp Asn Val Thr Gly Asp Val Leu Asn Ala Xaa Ser
20     25     30
Leu His Asn Arg Gly Asp Xaa Glu Arg Trp Pro Ile His Arg Asp Pro
35     40     45
Pro Ala Phe Asp Asp Leu Glu Pro Glu Thr Glu Met Leu Glu Thr Gly
50     55     60
Ile Lys Val Leu Asp Leu Leu Thr Pro Tyr Val Lys Gly Gly Lys Ile
65     70     75     80
Gly Leu Phe Gly Gly Ala Gly Val Gly Lys Thr Val Leu Ile Gln Glu

```

				85				90				95			
Met	Ile	Tyr	Arg	Ile	Ala	His	Asn	Phe	Gly	Gly	Thr	Ser	Val	Phe	Ala
100				105				110							
Gly	Val	Gly	Glu	Arg	Thr	Arg	Glu	Gly	Asn	Asp	Leu	Ile	Asn	Glu	Met
115				120				125							
Asp	Glu	Ala	Gly	Val	Leu	Lys	Asp	Thr	Ala	Leu	Val	Phe	Gly	Gln	Met
130				135				140							
Asp	Glu	Pro	Pro	Gly	Thr	Arg	Tyr	Glu	Leu	Ser	Arg	Trp	Gln	Pro	Cys
145				150				155				160			
Gly	Pro	Cys	Leu	Val	Asn	Cys	Cys	Gly	Thr	Leu					
165				170											

```
<210> 497
<211> 662
<212> DNA
<213> Homo sapiens
```

```

<400> 497
acgcgcctctg ggatctcaac ccagcagctc tggcttgttt ctcatcccca caatttcctg
60
ggttccacca agcagcgaaa actgccagga tgaatgagga aaaaaccagg cccacaaaac
120
gagacacacg ctggcgggga gagacgcagc agagctcctt cctgtctgtg gactcggagc
180
aaagacgtgg ggccccatct tttgtgtttt cctcaagcgg ggaaagaatg gactgtttgc
240
atgcttcgtg ccacacgccc gcggtgatcc cagccagggc cccgagcgca gaggcgagac
300
tgtgctcagc acaggcctgg gacctcccc ggcaggcacc tgtgggggggt gcagcccccg
360
ggaaggaggc aactgcctca cttaacatcc tccgctgcaa ggtggtggcg ccgagaggcg
420
tgtctgtgaa gacaggtacc aggatggcag gaccgcacg cctcttccca cacctgtcag
480
cttcggaagc atctctcgag gactctggtc ccaggatgtc tcccaggaca agccagtctg
540
ctctctctc ctacttctgc tgtagcctgg gaccagacct ggccaaggtc agccagcggg
600
gagggccgag gtctgagctc tcgtcctgcc gtggcccccg cgatggcttg gggtgcaagc
660
tt
662

```

```
<210> 498
<211> 191
<212> PRT
<213> Homo sapiens
```

<400> 498  
Met Asn Glu Glu Lys Thr Gln Pro His Lys Arg Asp Thr Arg Trp Arg  
1 5 10 15  
Gly Glu Thr Gln Gln Ser Ser Phe Leu Ser Val Asp Ser Glu Gln Arg  
20 25 30  
Arg Gly Ala Pro Ser Phe Val Phe Ser Ser Ser Gly Glu Arg Met Asp



```

      35      40      45
Cys Leu His Ala Ser Cys His Thr Pro Ala Val Ile Pro Ala Arg Ala
  50      55      60
Pro Ser Ala Glu Ala Glu Leu Cys Ser Ala Gln Ala Trp Asp Leu Pro
65      70      75      80
Arg Gln Ala Pro Val Gly Gly Ala Ala Pro Gly Lys Glu Ala Thr Ala
      85      90      95
Ser Leu Asn Ile Leu Arg Cys Lys Val Val Ala Pro Arg Gly Val Ser
      100      105      110
Val Lys Thr Gly Thr Arg Met Ala Gly Pro Ala Arg Leu Phe Pro His
      115      120      125
Leu Ser Ala Ser Glu Ala Ser Leu Glu Asp Ser Gly Pro Arg Met Ser
      130      135      140
Pro Arg Thr Ser Gln Ser Ala Ser Ser Ser Tyr Phe Cys Cys Ser Leu
145      150      155      160
Gly Pro Asp Leu Ala Lys Val Ser Gln Arg Gly Gly Pro Arg Ser Glu
      165      170      175
Leu Ser Ser Cys Arg Gly Pro Arg Asp Gly Leu Gly Cys Lys Leu
      180      185      190

```

<210> 499  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

```

<400> 499
acgcgtgaag ggtgggcagt gttgagctga gtgagccctc ctccctgcaa tgctggagcc
60
ctgccttctg cctgaccctc tggcttccta agcagtctat acgtgagaag ccctttcttc
120
aagtgaagc ttctgagctc actacgagag cactggagct ggaacctctc tgggttcaaa
180
tcctcaactg gggggttgga ggaggttact tcacttctca aaacctcaat ttccttatct
240
gcaaaatggg gtaataggag cccctcttca tcaatgcttg gagggaatgc ctggcacagt
300
agggcagtta ccgtcatgga gaacagaaag gccccgagct atcctggatg tggtgagaat
360
gggtcctgga tcctgcctgc tcggcctttt cattctcttc ttcacctaca ggctcccaca
420
aagggcctct gaaaacacag ggtg
444

```

<210> 500  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 500
Met Thr Val Thr Ala Leu Leu Cys Gln Ala Phe Pro Pro Ser Ile Asp
  1      5      10      15
Glu Glu Gly Leu Leu Leu Pro His Phe Ala Asp Lys Glu Ile Glu Val
      20      25      30
Leu Arg Ser Glu Val Thr Ser Ser Asn Pro Pro Val Glu Asp Leu Asn

```

```

      35          40          45
Pro Glu Arg Phe Gln Leu Gln Cys Ser Arg Ser Glu Leu Arg Ser Phe
      50          55          60
His Leu Lys Lys Gly Leu Leu Thr Tyr Arg Leu Leu Arg Lys Pro Glu
65          70          75          80
Gly Gln Ala Glu Gly Arg Ala Pro Ala Leu Gln Gly Gly Gly Leu Thr
      85          90          95
Gln Leu Asn Thr Ala His Pro Ser Arg
      100          105

```

<210> 501  
 <211> 800  
 <212> DNA  
 <213> Homo sapiens

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<400> 501
agatctgac cgagaagtgg ctgctcaggg aaatgactac tccatggctt tcttaactca
60
ggtactcctt attcaatgag aggcctgagg tgagaccgcg catgcggcgc gtggatcgca
120
tggtgttagt gcacactagc aaggggctta ggtctccagc tgaggtcaga tgcacacttg
180
gaccttgtagc tggggagtaa cacacatctc tgtgttcagc gaaccatcca ggagctgttt
240
gaagtttatt ctcccatgga tgatgctggc ttcccggtca aagctgagga gtttgtggtg
300
ctttctcagg aaccttctgt cacggaaacc attgcaccca aaattgcaag acctttcata
360
gaggccctca agagtattga gtatctggag gaggatgccc agaagtccgc acaggagggg
420
gtgctgggac cacacactga tgctctgtca tcagactctg agaacatgcc gtgtgatgaa
480
gaaccatccc aattagagga gctagctgac ttcattggagc agcttacacc aattgaaaaa
540
tatgctttaa attacctgga atcttgaggc agggcctgag agagcacgct gcgccgtact
600
tccagcagct gcggcagacc acggctccac gcctgctgca gttccctgag ctgaggctgg
660
tgcagttcga ctcaggtatg cggcagttgg gggcgtggcc cgtgcgggag ctgcactggc
720
cctggatgat gaggcgtctt tgatgtgatt cgtttcccag ggaagttgga agcttttagct
780
atcttgcttc agaaactgaa
800

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<210> 502  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

```

<400> 502
Met Asp Asp Ala Gly Phe Pro Val Lys Ala Glu Glu Phe Val Val Leu
1          5          10          15
Ser Gln Glu Pro Ser Val Thr Glu Thr Ile Ala Pro Lys Ile Ala Arg

```

```

      20      25      30
Pro Phe Ile Glu Ala Leu Lys Ser Ile Glu Tyr Leu Glu Glu Asp Ala
      35      40      45
Gln Lys Ser Ala Gln Glu Gly Val Leu Gly Pro His Thr Asp Ala Leu
      50      55      60
Ser Ser Asp Ser Glu Asn Met Pro Cys Asp Glu Glu Pro Ser Gln Leu
65      70      75      80
Glu Glu Leu Ala Asp Phe Met Glu Gln Leu Thr Pro Ile Glu Lys Tyr
      85      90      95
Ala Leu Asn Tyr Leu Glu Ser
      100

```

<210> 503  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

```

<400> 503
nnacgcgttg tcgtctctcc gatcattgat tttgttgat tctgcaatga tgtaaaggaa
60
gatgatgaca cggagaagtt taaagaagcc attgtgaaat ttcattaggct gtttgggatg
120
ccagaggaag agaaactcgt caactattac tcttcagct attggaaggg gaaggcccc
180
cgtcagggtt ggatgtacct cagcattaac cacctttgct tttattcttt tcttatggga
240
agggaagcga aactggcat ccggtgggta gacatcactc agcttgagaa gaatgcccc
300
ctgcttctgc ctgatgtgat caaagtgagc acacgggtcca gtgagcattt cttctctgta
360
ttctcaaca tcaacgagac cttcaagtta atggagcagc ttgccaacat agccatgagg
420
caactcttag acaatgaggg atttgaacaa gatcgatccc tgcccaaact caaaaggaaa
480
tctcctaaaa aagtgtctgc tctaaaacgt gatcttgatg cctgggcccct tcacgcgt
538

```

<210> 504  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

```

<400> 504
Xaa Arg Val Val Ser Pro Ile Ile Asp Phe Val Val Phe Cys Asn
1      5      10      15
Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile Val
      20      25      30
Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val Asn
      35      40      45
Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly Lys Val Pro Arg Gln Gly Trp
      50      55      60
Met Tyr Leu Ser Ile Asn His Leu Cys Phe Tyr Ser Phe Leu Met Gly
65      70      75      80
Arg Glu Ala Lys Leu Val Ile Arg Trp Val Asp Ile Thr Gln Leu Glu

```

```

      85      90      95
Lys Asn Ala Pro Leu Leu Leu Pro Asp Val Ile Lys Val Ser Thr Arg
      100      105      110
Ser Ser Glu His Phe Phe Ser Val Phe Leu Asn Ile Asn Glu Thr Phe
      115      120      125
Lys Leu Met Glu Gln Leu Ala Asn Ile Ala Met Arg Gln Leu Leu Asp
      130      135      140
Asn Glu Gly Phe Glu Gln Asp Arg Ser Leu Pro Lys Leu Lys Arg Lys
      145      150      155      160
Ser Pro Lys Lys Val Ser Ala Leu Lys Arg Asp Leu Asp Ala Trp Ala
      165      170      175
Leu His Ala

```

<210> 505  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

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<400> 505
gtgcacgaca ccgaacggta cgaacgtatc tcccaggcac gtcgcgagga acagcaggcc
60
atgctcgggt acgaengctc aagaacctgt cgcattgacct tgctcaccgg gcagctggac
120
gacccctcca cgactccttg cggacgtctg gacgtctgtg ctggcccggt gtactcagtc
180
gaggctcgatc agtcagccgc tgtgagagcc gtccaatccc tcaaccgggt gggagttccg
240
gtggaaccac gcgccgcttg gcccgagggt atggacgccc tccaggttgc gctcaagggt
300
cgcatcagtg ccgaggagat cgctgcagag ggccgcgtca tcgccagact ctccgatctg
360
ggttggggag gggcgctgcg c
381

```

<210> 506  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

```

<400> 506
Val His Asp Thr Glu Arg Tyr Glu Arg Ile Ser Gln Ala Arg Arg Glu
1      5      10      15
Glu Gln Gln Ala Met Leu Gly Tyr Asp Xaa Ser Arg Thr Cys Arg Met
20      25      30
Thr Leu Leu Thr Gly Gln Leu Asp Asp Pro Ser Thr Thr Pro Cys Gly
35      40      45
Arg Cys Asp Val Cys Ala Gly Pro Trp Tyr Ser Val Glu Val Asp Gln
50      55      60
Ser Ala Ala Val Arg Ala Val Gln Ser Leu Asn Arg Val Gly Val Pro
65      70      75      80
Val Glu Pro Arg Ala Ala Trp Pro Ala Gly Met Asp Ala Leu Gln Val
85      90      95
Ala Leu Lys Gly Arg Ile Ser Ala Glu Glu Ile Ala Ala Glu Gly Arg

```

100                      105                      110  
 Val Ile Ala Arg Leu Ser Asp Leu Gly Trp Gly Gly Ala Leu Arg  
 115                      120                      125

<210> 507  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

<400> 507  
 gccggcgtgt tcaacctcat ggtgtggggc ttcattaccg acgtcatcga tgcccaggag  
 60  
 gtcattgtccg gggagcgtga agacggtgtc atctatggcg tgaactcctt cgcccgcaaa  
 120  
 cttgcccagg ccattgccgg tggaaatcggc ggagccatgc tgacgatgat cggctaccag  
 180  
 tcctcctccc aagggtggtgc cgttcagtcg gagtccgtcg tcaatcacct gtacacgctc  
 240  
 gccaccgcca tcccgaagat ctgctgcctc ggcgctgccc tgctcatgct gggctaccg  
 300  
 ctcaccgcgg acaaggtggt cgccaacgcc gacgagttgg ctcgtcgcca cgcagtacag  
 360  
 gccgagcaaa actcctgacc cataacggag gcacatcatg gacacgctca tgcggatcac  
 420  
 cgaccacttg acaacctcgc cgggtatcca attgaaaatt gacaagcgat ggggtgcctc  
 480  
 cgtcacattt gtgacgcgt  
 499

<210> 508  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 508  
 Ala Gly Val Phe Asn Leu Met Val Trp Ala Phe Ile Thr Asp Val Ile  
 1                      5                      10                      15  
 Asp Ala Gln Glu Val Met Ser Gly Glu Arg Glu Asp Gly Val Ile Tyr  
 20                      25                      30  
 Gly Val Asn Ser Phe Ala Arg Lys Leu Ala Gln Ala Ile Ala Gly Gly  
 35                      40                      45  
 Ile Gly Gly Ala Met Leu Thr Met Ile Gly Tyr Gln Ser Ser Ser Gln  
 50                      55                      60  
 Gly Gly Ala Val Gln Ser Glu Ser Val Val Asn His Leu Tyr Thr Leu  
 65                      70                      75                      80  
 Ala Thr Ala Ile Pro Thr Ile Cys Cys Leu Gly Ala Ala Leu Leu Met  
 85                      90                      95  
 Leu Gly Tyr Pro Leu Thr Arg Asp Lys Val Val Ala Asn Ala Asp Glu  
 100                      105                      110  
 Leu Ala Arg Arg His Ala Val Gln Ala Glu Gln Asn Ser  
 115                      120                      125

<210> 509  
 <211> 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 509

ttggccatgg atttggtcgc caagttcagt cccaaagatg tcacgctcta tctaattggac  
 60  
 ttccgggacca atggtgtggc accactaggc caattaccac aggtggccga caccttgctt  
 120  
 ttggatcata cggagaagat tgccaagttt gtacgcatca tggagcggga gctcaaccgg  
 180  
 cgtaagaagc tcttgtccga ctacggtgtt ggtacactag agctctaccg tcaggctagc  
 240  
 ggtcagcaag agccggccat cgtcatcctg ctggacagtt atgagtccat gaaggaagag  
 300  
 gcctatgaag cggagctctt cacgctcttg gtgcggatct cccgggaagg tctcagcatc  
 360

&lt;210&gt; 510

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 510

Leu	Ala	Met	Asp	Leu	Ala	Arg	Lys	Phe	Ser	Pro	Lys	Asp	Val	Thr	Leu
1				5					10				15		
Tyr	Leu	Met	Asp	Phe	Gly	Thr	Asn	Gly	Val	Ala	Pro	Leu	Gly	Gln	Leu
			20					25					30		
Pro	Gln	Val	Ala	Asp	Thr	Leu	Leu	Asp	His	Thr	Glu	Lys	Ile	Ala	
		35				40					45				
Lys	Phe	Val	Arg	Ile	Met	Glu	Arg	Glu	Leu	Asn	Arg	Arg	Lys	Lys	Leu
		50				55					60				
Leu	Ser	Asp	Tyr	Gly	Val	Gly	Thr	Leu	Glu	Leu	Tyr	Arg	Gln	Ala	Ser
65					70					75				80	
Gly	Gln	Gln	Glu	Pro	Ala	Ile	Val	Ile	Leu	Leu	Asp	Ser	Tyr	Glu	Ser
				85					90					95	
Met	Lys	Glu	Glu	Ala	Tyr	Glu	Ala	Glu	Leu	Phe	Thr	Leu	Leu	Val	Arg
				100				105						110	
Ile	Ser	Arg	Glu	Gly	Leu	Ser	Ile								
				115			120								

&lt;210&gt; 511

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 511

ntcgcgaacc gcggctatgc ggtgctccag cccaatttcc gcggatcggg cggttatggc  
 60  
 actgcgttcg gcgatgccgg catcggccag atcgggcgca agatgcagga cgatctcgac  
 120  
 gacgggatgg actggctggt caaggagggc atcgtcgaca agggccgggt gtgcatcgtc  
 180  
 ggggcctcct atggcggcta tgccgcatg tggggcgca tccgcaatcc cgaacgctat  
 240

cgctgcgcgg cgagcctggc gggggttgcc gattaaggcc atgctcaaataaataaccggcg  
 300  
 ctatctcgac aaggaggcgg gcaagcgctg gccgccccgn tcaaccggcg aaccgaatt  
 360  
 c  
 361

<210> 512  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 512  
 Xaa Ala Asn Arg Gly Tyr Ala Val Leu Gln Pro Asn Phe Arg Gly Ser  
 1 5 10 15  
 Gly Gly Tyr Gly Thr Ala Phe Gly Asp Ala Gly Ile Gly Gln Ile Gly  
 20 25 30  
 Arg Lys Met Gln Asp Asp Leu Asp Asp Gly Met Asp Trp Leu Val Lys  
 35 40 45  
 Glu Gly Ile Val Asp Lys Gly Arg Val Cys Ile Val Gly Ala Ser Tyr  
 50 55 60  
 Gly Gly Tyr Ala Ala Met Trp Gly Ala Ile Arg Asn Pro Glu Arg Tyr  
 65 70 75 80  
 Arg Cys Ala Ala Ser Leu Ala Gly Val Ala Asp  
 85 90

<210> 513  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 513  
 nnatgcagac tagaagatgg catgacgggt ttggctggcg gtttcgggct atgcggcatt  
 60  
 ccagaaaatc tgattcaaga gatcaaacga cgccagactt gtgatttgac catagtgtca  
 120  
 aataactgtg gtgtagatgg ttttggttta ggggttttgc tagaagataa gcaagtacgc  
 180  
 aaaatgggtgt cttcttatgt gggtgaaaat gcactgtttg agaagcaatt attacaaggt  
 240  
 gagttggaag tcgagctcac tcctcaaggc actcttgccg aaaaactacg cgctggcggc  
 300  
 gcggggaattc ctgccttttt cacagcaacg ggtgtaggta cacctattgg tgagggtaaa  
 360  
 gacacgcgt  
 369

<210> 514  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 514  
 Xaa Cys Arg Leu Glu Asp Gly Met Thr Val Leu Ala Gly Gly Phe Gly

```

      1             5             10             15
Leu Cys Gly Ile Pro Glu Asn Leu Ile Gln Glu Ile Lys Arg Arg Gln
      20             25             30
Thr Cys Asp Leu Thr Ile Val Ser Asn Asn Cys Gly Val Asp Gly Phe
      35             40             45
Gly Leu Gly Val Leu Leu Glu Asp Lys Gln Val Arg Lys Met Val Ser
      50             55             60
Ser Tyr Val Gly Glu Asn Ala Leu Phe Glu Lys Gln Leu Leu Gln Gly
      65             70             75             80
Glu Leu Glu Val Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Lys Leu
      85             90             95
Arg Ala Gly Gly Ala Gly Ile Pro Ala Phe Phe Thr Ala Thr Gly Val
      100             105             110
Gly Thr Pro Ile Gly Glu Gly Lys Asp Thr Arg
      115             120

```

<210> 515  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

```

<400> 515
g c g t g g g a c g   a g a a g g c c g c   c g g c a a c t g c   g c g a t c g a c t   a c g g g t t c c a   c c a g a t c c t c
60
t c c g a c g t g c   a g g a c t c g t c   g e t g a c c g c g   a t g g a c g a g c   t g a t c a c c g a   g g g c g t g a c a
120
t c c t t c a a g c   t e t t c g t g g c   c t a c a a g g g c   g t e t t c c t e t   c g g a c g a c g g   g c a g a t c c t g
180
c g g g c g t t c c   a g a a g g g c g c   c g a c a a c g g c   g c g a t g a t g a   t g a t g c a c g c   c g a g a a c g g c
240
g c g a t a t c g   a c g t g c t c g t   g c a g c a g g c g   c t c g a g g c c g   g g a a g a c c a c   c c c g t a c t a c
300
c a c g g c a t c a   g c c g g c c g t g   g c a g g c c g a g   g a g g a g g c c a   c c c a c c g c g c   g a t c a t g a t c
360
g c c g a c c t g a   c c g g t g c g c c   g t t g t a c
387

```

<210> 516  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

```

<400> 516
Ala Trp Asp Glu Lys Ala Ala Gly Asn Cys Ala Ile Asp Tyr Gly Phe
 1             5             10             15
His Gln Ile Leu Ser Asp Val Gln Asp Ser Ser Leu Thr Ala Met Asp
      20             25             30
Glu Leu Ile Thr Glu Gly Val Thr Ser Phe Lys Leu Phe Val Ala Tyr
      35             40             45
Lys Gly Val Phe Leu Ser Asp Asp Gly Gln Ile Leu Arg Ala Phe Gln
      50             55             60
Lys Gly Ala Asp Asn Gly Ala Met Met Met Met His Ala Glu Asn Gly
      65             70             75             80
Ala Ile Ile Asp Val Leu Val Gln Gln Ala Leu Glu Ala Gly Lys Thr

```



85 90 95  
 Thr Pro Tyr Tyr His Gly Ile Ser Arg Pro Trp Gln Ala Glu Glu Glu  
 100 105 110  
 Ala Thr His Arg Ala Ile Met Ile Ala Asp Leu Thr Gly Ala Pro Leu  
 115 120 125  
 Tyr

<210> 517  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 517  
 acgcgtgaag ggctggtggg caggccttgc gccccctctg gggacagctc tcctccaccc  
 60  
 agacccttc gggccaacag tggggagggg ctgccgtctg agccactgtt ccgacagggg  
 120  
 attcgcgagt tccgggggag ctggggactg agctgcgggc ctcttgggct ggggctcttc  
 180  
 tccgaggttg gaggcagctt tagaaacttg agacccttag ctggagaggg cagaaggggt  
 240  
 ccctgagctt cccagggaga aggggggcca atttggagct tgcttttcac ctgagatgag  
 300  
 gaatgggggt ggccaggccg agagcccagt ggggcatccc cagcacccat gaacatgcta  
 360  
 aggaagggga ggggccc  
 377

<210> 518  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 518  
 Met Phe Met Gly Ala Gly Asp Ala Pro Leu Gly Ser Arg Pro Gly His  
 1 5 10 15  
 Pro His Ser Ser Ser Gln Val Lys Ser Lys Leu Gln Ile Gly Pro Pro  
 20 25 30  
 Ser Pro Gly Glu Ala Gln Gly Pro Leu Leu Pro Ser Pro Ala Arg Gly  
 35 40 45  
 Leu Lys Phe Leu Lys Leu Pro Thr Ser Glu Lys Ser Pro Ser Pro  
 50 55 60  
 Gly Gly Pro Gln Leu Ser Pro Gln Leu Pro Arg Asn Ser Arg Ile Pro  
 65 70 75 80  
 Cys Arg Asn Ser Gly Ser Asp Gly Ser Pro Ser Pro Leu Leu Ala Arg  
 85 90 95  
 Arg Gly Leu Gly Gly Gly Glu Leu Ser Pro Glu Gly Ala Gln Gly Leu  
 100 105 110  
 Pro Thr Ser Pro Ser Arg  
 115

<210> 519  
 <211> 311

<212> DNA  
 <213> Homo sapiens

<400> 519  
 gcgcgccagg gggaaggag agaaaacaca gaaaaatgag ggggaaatac cagatactga  
 60  
 agaattttaa ttattataaa ggaacctttt ctgcaactct gaaaaatgtt agaatatcca  
 120  
 aagaaattga taattttcta ggaaaacatg acttaccaaa attaactcta gaaaagaatc  
 180  
 gatacacatc agtaacaaca gaagttgaga aagtagttaa catattgcca aacctggaat  
 240  
 tcatgattga attctttgag atctactgtg agtacatact ctgcctctgt tcagctgttc  
 300  
 cagaacttaa g  
 311

<210> 520  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 520  
 Met Arg Gly Lys Tyr Gln Ile Leu Lys Asn Leu Asn Tyr Tyr Lys Gly  
 1 5 10 15  
 Thr Phe Ser Ala Thr Leu Lys Asn Val Arg Ile Ser Lys Glu Ile Asp  
 20 25 30  
 Asn Phe Leu Gly Lys His Asp Leu Pro Lys Leu Thr Leu Glu Lys Asn  
 35 40 45  
 Arg Tyr Thr Ser Val Thr Thr Glu Val Glu Lys Val Val Asn Ile Leu  
 50 55 60  
 Pro Asn Leu Glu Phe Met Ile Glu Phe Phe Glu Ile Tyr Cys Glu Tyr  
 65 70 75 80  
 Ile Leu Cys Leu Cys Ser Ala Val Pro Glu Leu Lys  
 85 90

<210> 521  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 521  
 nnngatgcc a cgcggtcta cggaatctcc accggcttcg gcgcgcttgc cgcgcgccac  
 60  
 attccagaag agatgcgcgc gcagctgcag ctgtccctgg tgcgtccca cgcggcggc  
 120  
 accggccctg aggtggaaga agaagtaatt cgcgcgctca tgctgctgcg cctatccacc  
 180  
 ctgtgtaccg gccgtaccgg cgtgcgcccc gtggtggtag aaacttatgc caaggcgctc  
 240  
 aacgcggcca tcgtgccggg ggtgcgcgaa tacgggtcgc tgggctgctc cggcgacttg  
 300  
 gcccgctgg ctcactgcgc cctagcgtg ttgggtgagg gtgaggtacg cn  
 352

<210> 522  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 522  
 Xaa Asp Ala Thr Pro Val Tyr Gly Ile Ser Thr Gly Phe Gly Ala Leu  
 1 5 10 15  
 Ala Arg Arg His Ile Pro Glu Glu Met Arg Ala Gln Leu Gln Leu Ser  
 20 25 30  
 Leu Val Arg Ser His Ala Ala Gly Thr Gly Pro Glu Val Glu Glu Glu  
 35 40 45  
 Val Ile Arg Ala Leu Met Leu Leu Arg Leu Ser Thr Leu Cys Thr Gly  
 50 55 60  
 Arg Thr Gly Val Arg Pro Val Val Val Glu Thr Tyr Ala Lys Ala Leu  
 65 70 75 80  
 Asn Ala Gly Ile Val Pro Gly Val Arg Glu Tyr Gly Ser Leu Gly Cys  
 85 90 95  
 Ser Gly Asp Leu Ala Pro Leu Ala His Cys Ala Leu Ala Leu Leu Gly  
 100 105 110  
 Glu Gly Glu Val Arg  
 115

<210> 523  
 <211> 693  
 <212> DNA  
 <213> Homo sapiens

<400> 523  
 agcgccttcca cagtcgcgca aactcctctt ggtctagccg cccattcact ttcagttcca  
 60  
 tcagagccac caagctgcgg caccatctaa ggagaacatg tccccggag gtcctgtag  
 120  
 aagctcctgg ttgagaaggc cctgaagctg ggtggcatca atgtccagcc tctgctgagc  
 180  
 atatctgttg aaaatgcttt gttgggagcc atgttctgaa gggcttcctt tcattctgag  
 240  
 gttgaaatgg ctgctcaggt gcctgtcact gtctggcatt ttcaggaaga ttcggagcaa  
 300  
 gaactccgct gattttctcc gtgtctgtgc aaccacaaca tagttcccag ggctcagatg  
 360  
 gtaagtcatg gtgaagttgc ggcggaattt attatttgag ctttggacag tgtttctgaa  
 420  
 cgaggaaaaa aacacgggtg gaaatttctc ccggaaccgc tgtgagccag ccagaatcac  
 480  
 ttggaaatcg agtggaaatt ttgcattctc tgctttcaaa tttgatgggtg tgacagcaac  
 540  
 tgtgacgcac acgacaacat tgggtgccttc cattggctct tgcacagaga agttgaattg  
 600  
 agcatcattt ccgggtcttc ctggcgtgtt tctagaatc attgcttcct aaacattatt  
 660  
 tgggaccatc cttcgtggag tgtgtttcca tgg  
 693

<210> 524  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 524  
 Met Ile Leu Gly Asn Thr Pro Gly Gly Pro Gly Asn Asp Ala Gln Phe  
 1 5 10 15  
 Asn Phe Ser Val Gln Glu Pro Met Glu Gly Thr Asn Val Val Val Cys  
 20 25 30  
 Val Thr Val Ala Val Thr Pro Ser Asn Leu Lys Ala Glu Asp Ala Lys  
 35 40 45  
 Phe Pro Leu Asp Phe Gln Val Ile Leu Ala Gly Ser Gln Arg Phe Arg  
 50 55 60  
 Glu Lys Phe Pro Pro Val Phe Phe Ser Ser Phe Arg Asn Thr Val Gln  
 65 70 75 80  
 Ser Ser Asn Asn Lys Phe Arg Arg Asn Phe Thr Met Thr Tyr His Leu  
 85 90 95  
 Ser Pro Gly Asn Tyr Val Val Val Ala Gln Thr Arg Arg Lys Ser Ala  
 100 105 110  
 Glu Phe Leu Leu Arg Ile Phe Leu Lys Met Pro Asp Ser Asp Arg His  
 115 120 125  
 Leu Ser Ser His Phe Asn Leu Arg Met Lys Gly Ser Pro Ser Glu His  
 130 135 140  
 Gly Ser Gln Gln Ser Ile Phe Asn Arg Tyr Ala Gln Gln Arg Leu Asp  
 145 150 155 160  
 Ile Asp Ala Thr Gln Leu Gln Gly Leu Leu Asn Gln Glu Leu Leu Thr  
 165 170 175  
 Gly Pro Pro Gly Asp Met Phe Ser Leu Asp Gly Ala Ala Ala Trp Trp  
 180 185 190  
 Leu

<210> 525  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

<400> 525  
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&lt;210&gt; 526

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 526

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Ala	Leu	Gln	Ala	Cys	Asn
Glu	Glu	Trp	Gln	Gln	Cys
Arg	Arg	Val	Thr	Cys	Arg
Leu	Ser	Asp	Glu	Leu	Cys
Cys	Ala	Arg	Thr	Asp	Cys
Lys	Cys	Ser	Val	Ser	Cys
Cys	Gln	Arg	Leu	Ala	Ala
Met	Cys	Arg	Asp	Leu	Pro
Pro	Glu	Cys	Ser	Lys	Ile
Gln	Gly	Pro	Gln	Ile	Leu
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Pro	Asn	Thr	Ser	Val	Ile
Ser	Leu	Ile	Gln	Trp	Glu
Arg	Leu	Gly	Ile	Thr	Lys
Ala	Pro	Asp	Ile	Gly	Val
Thr	Val	Val	Leu	Lys	Leu
Pro	Ala	Leu	Arg	Glu	Pro
Glu	Ala	Asn	Ser	Leu	Gly
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&lt;210&gt; 529

&lt;211&gt; 4566

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 529

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2580  
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2700  
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2760  
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2880  
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3120

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3180  
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3240  
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3300  
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3420  
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3780  
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3900  
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3960  
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4200  
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4260  
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4320  
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4380  
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4440  
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4500  
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4560  
acacga  
4566

&lt;210&gt; 530

&lt;211&gt; 802

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 530

```

Met Ala Ala Arg Gly Arg Arg Ala Trp Leu Ser Val Leu Leu Gly Leu
 1           5           10           15
Val Leu Gly Phe Val Leu Ala Ser Arg Leu Val Leu Pro Arg Ala Ser
          20           25           30
Glu Leu Lys Arg Ala Gly Pro Arg Arg Arg Ala Ser Pro Glu Gly Cys
          35           40           45
Arg Ser Gly Gln Ala Ala Ala Ser Gln Ala Gly Gly Ala Arg Gly Asp
          50           55           60
Ala Arg Gly Ala Gln Leu Trp Pro Pro Gly Ser Asp Pro Asp Gly Gly
65           70           75           80
Pro Arg Asp Arg Asn Phe Leu Phe Val Gly Val Met Thr Ala Gln Lys
          85           90           95
Tyr Leu Gln Thr Arg Ala Val Ala Ala Tyr Arg Thr Trp Ser Lys Thr
          100          105          110
Ile Pro Gly Lys Val Gln Phe Phe Ser Ser Glu Gly Ser Asp Thr Ser
          115          120          125
Val Pro Ile Pro Val Val Pro Leu Arg Gly Val Asp Ser Tyr Pro
          130          135          140
Pro Gln Lys Lys Ser Phe Met Met Leu Lys Tyr Met His Asp His Tyr
145          150          155          160
Leu Asp Lys Tyr Glu Trp Phe Met Arg Ala Asp Asp Asp Val Tyr Ile
          165          170          175
Lys Gly Asp Arg Leu Glu Asn Phe Leu Arg Ser Leu Asn Ser Ser Glu
          180          185          190
Pro Leu Phe Leu Gly Gln Thr Gly Leu Gly Thr Thr Glu Glu Met Gly
          195          200          205
Lys Leu Ala Leu Glu Pro Gly Glu Asn Phe Cys Met Gly Gly Pro Gly
          210          215          220
Val Ile Met Ser Arg Glu Val Leu Arg Arg Met Val Pro His Ile Gly
225          230          235          240
Lys Cys Leu Arg Glu Met Tyr Thr Thr His Glu Asp Val Glu Val Gly
          245          250          255
Arg Cys Val Arg Arg Phe Ala Gly Val Gln Cys Val Trp Ser Tyr Glu
          260          265          270
Met Gln Gln Leu Phe Tyr Glu Asn Tyr Glu Gln Asn Lys Lys Gly Tyr
          275          280          285
Ile Arg Asp Leu His Asn Ser Lys Ile His Gln Ala Ile Thr Leu His
          290          295          300
Pro Asn Lys Asn Pro Pro Tyr Gln Tyr Arg Leu His Ser Tyr Met Leu
305          310          315          320
Ser Arg Lys Ile Ser Glu Leu Arg His Arg Thr Ile Gln Leu His Arg
          325          330          335
Glu Ile Val Leu Met Ser Lys Tyr Ser Asn Thr Glu Ile His Lys Glu
          340          345          350
Asp Leu Gln Leu Gly Ile Pro Pro Ser Phe Met Arg Phe Gln Pro Arg
          355          360          365
Gln Arg Glu Glu Ile Leu Glu Trp Glu Phe Leu Thr Gly Lys Tyr Leu
          370          375          380
Tyr Ser Ala Val Asp Gly Gln Pro Pro Arg Arg Gly Met Asp Ser Ala
385          390          395          400
Gln Arg Glu Ala Leu Asp Asp Ile Val Met Gln Val Met Glu Met Ile

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      405      410      415
Asn Ala Asn Ala Lys Thr Arg Gly Arg Ile Ile Asp Phe Lys Glu Ile
      420      425      430
Gln Tyr Gly Tyr Arg Arg Val Asn Pro Met Tyr Gly Ala Glu Tyr Ile
      435      440      445
Leu Asp Leu Leu Leu Leu Tyr Lys Lys His Lys Gly Lys Lys Met Thr
      450      455      460
Val Pro Val Arg Arg His Ala Tyr Leu Gln Gln Thr Phe Ser Lys Ile
      465      470      475      480
Gln Phe Val Glu His Glu Glu Leu Asp Ala Gln Glu Leu Ala Lys Arg
      485      490      495
Ile Asn Gln Glu Ser Gly Ser Leu Ser Phe Leu Ser Asn Ser Leu Lys
      500      505      510
Lys Leu Val Pro Phe Gln Leu Pro Gly Ser Lys Ser Glu His Lys Glu
      515      520      525
Pro Lys Asp Lys Lys Ile Asn Ile Leu Ile Pro Leu Ser Gly Arg Phe
      530      535      540
Asp Met Phe Val Arg Phe Met Gly Asn Phe Glu Lys Thr Cys Leu Ile
      545      550      555      560
Pro Asn Gln Asn Val Lys Leu Val Val Leu Leu Phe Asn Ser Asp Ser
      565      570      575
Asn Pro Asp Lys Ala Lys Gln Val Glu Leu Met Thr Asp Tyr Arg Ile
      580      585      590
Lys Tyr Pro Lys Ala Asp Met Gln Ile Leu Pro Val Ser Gly Glu Phe
      595      600      605
Ser Arg Ala Leu Ala Leu Glu Val Gly Ser Ser Gln Phe Asn Asn Glu
      610      615      620
Ser Leu Leu Phe Phe Cys Asp Val Asp Leu Val Phe Thr Thr Glu Phe
      625      630      635      640
Leu Gln Arg Cys Arg Ala Asn Thr Val Leu Gly Gln Gln Ile Tyr Phe
      645      650      655
Pro Ile Ile Phe Ser Gln Tyr Asp Pro Lys Ile Val Tyr Ser Gly Lys
      660      665      670
Val Pro Ser Asp Asn His Phe Ala Phe Thr Gln Lys Thr Gly Phe Trp
      675      680      685
Arg Asn Tyr Gly Phe Gly Ile Thr Cys Ile Tyr Lys Gly Asp Leu Val
      690      695      700
Arg Val Gly Gly Phe Asp Val Ser Ile Gln Gly Trp Gly Leu Glu Asp
      705      710      715      720
Val Asp Leu Phe Asn Lys Val Val Gln Ala Gly Leu Lys Thr Phe Arg
      725      730      735
Ser Gln Glu Val Gly Val Val His Val His His Pro Val Phe Cys Asp
      740      745      750
Pro Asn Leu Asp Pro Lys Gln Tyr Lys Met Cys Leu Gly Ser Lys Ala
      755      760      765
Ser Thr Tyr Gly Ser Thr Gln Gln Leu Ala Glu Met Trp Leu Glu Lys
      770      775      780
Asn Asp Pro Ser Tyr Ser Lys Ser Ser Asn Asn Gly Ser Val Arg
      785      790      795      800
Thr Ala

```

&lt;210&gt; 531

&lt;211&gt; 321



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

ngatgatgaa tccccccgca gcctcgtcaa tatggggggc ttcctacccc agcaaaaggc  
 60  
 acggcaatac gtctcgaaca aaggtctttt gtttcgaaat aacaaggggt tagagctaag  
 120  
 aggaagaagc gtgaaacgct gtaggaccag cgtttcgaac gcccccgagg tgaaccctcg  
 180  
 ggggcgtctg aatcaggcca gttgggcctg ggacgacagc gggtgcagcg gcagcaatgg  
 240  
 cgcgtgcgga tcagccttga tcgattcacg ccaggcgccg agccactcgg cgtggccttc  
 300  
 gttccacacc tgctggtgca g  
 321

&lt;210&gt; 532

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

Met	Gly	Gly	Phe	Leu	Pro	Gln	Gln	Lys	Ala	Arg	Gln	Tyr	Val	Ser	Asn
1				5					10					15	
Lys	Gly	Leu	Leu	Phe	Arg	Asn	Asn	Lys	Gly	Leu	Glu	Leu	Arg	Gly	Arg
		20						25					30		
Ser	Val	Lys	Arg	Cys	Arg	Thr	Ser	Val	Ser	Asn	Ala	Pro	Glu	Val	Asn
		35				40					45				
Pro	Arg	Gly	Arg	Leu	Asn	Gln	Ala	Ser	Trp	Ala	Trp	Asp	Asp	Ser	Gly
		50			55					60					
Cys	Ser	Gly	Ser	Asn	Gly	Ala	Cys	Gly	Ser	Ala	Leu	Ile	Asp	Ser	Arg
65				70					75					80	
Gln	Ala	Pro	Ser	His	Ser	Ala	Trp	Pro	Ser	Phe	His	Thr	Cys	Trp	Cys
			85					90						95	

&lt;210&gt; 533

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 533

nagtttccgg tgaaccgctc cgcaatgcct cgtgacatcg acttcagcga agccaacagg  
 60  
 agcatcatcg acaacatggc aactgectca atcccgtttt tccgaaccca caaaaactgg  
 120  
 gagacgtggt cgagtcaggc ccggcatttc attagccttt tacacccaaa agtcaccctc  
 180  
 accaaccattg acaacgtcct caacaaagat cacctgcgtt ggctacactt tcttttggag  
 240  
 ggtgcgctgg agccaaacgt gcgcctgatt gtccagggct actgttcgcc tggcaagctg  
 300  
 taccgcaagc ttgaggagct atatgccctt tctgc  
 335

<210> 534  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 534  
 Met Pro Arg Asp Ile Asp Phe Ser Glu Ala Asn Arg Ser Ile Ile Asp  
 1 5 10 15  
 Asn Met Ala Thr Ala Ser Ile Pro Leu Phe Arg Thr His Lys Asn Trp  
 20 25 30  
 Glu Thr Trp Ser Ser Gln Val Arg His Phe Ile Ser Leu Leu His Pro  
 35 40 45  
 Lys Val Thr Leu Thr Asn Ile Asp Asn Val Leu Asn Lys Asp His Leu  
 50 55 60  
 Arg Trp Leu His Phe Leu Leu Glu Gly Arg Leu Glu Pro Asn Val Arg  
 65 70 75 80  
 Leu Ile Val Gln Gly Tyr Cys Ser Pro Gly Lys Leu Tyr Arg Lys Leu  
 85 90 95  
 Glu Glu Leu Tyr Ala Pro Ser  
 100

<210> 535  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 535  
 acgcgtctct acagccggac taagcacagg ctcagccccg gtcgccatgc gccagggctc  
 60  
 ggttatcagc cgaggaatcc acggcgaaat gaccagtagc ggccctaata caactatgct  
 120  
 gccgagcagc agacgtcgag gtcgggtcat gaggatgccg acggccaccg cgaccgggta  
 180  
 taccacaat gcaggaacaa ggctgatagc tagggctgac cacagagcca ggccgcctgc  
 240  
 cgaggaaaacg cccccacct ggtgactgcc agtatcagca ccgcgcagct caacgacgtc  
 300  
 aacagtctcg ggattgacca accgccacgt atgcagggcc atgtggggga gaatcacccc  
 360  
 caacgccaat gctgtcaccg agcctcgggc taggccgccg gc  
 402

<210> 536  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 536  
 Met Ala Leu His Thr Trp Arg Leu Val Asn Pro Glu Thr Val Asp Val  
 1 5 10 15  
 Val Glu Leu Arg Gly Ala Asp Thr Gly Ser His Gln Val Gly Gly Val  
 20 25 30  
 Ser Ser Ala Gly Gly Leu Ala Leu Trp Ser Ala Leu Ala Ile Ser Leu

```

      35              40              45
Val Pro Ala Leu Trp Val Tyr Pro Val Ala Val Ala Val Gly Ile Leu
      50              55              60
Met Thr Arg Pro Arg Arg Leu Leu Leu Gly Ser Ile Val Val Leu Gly
      65              70              75              80
Pro Leu Leu Val Ile Ser Pro Trp Ile Pro Arg Leu Ile Thr Glu Pro
      85              90              95
Gly Arg Met Ala Thr Gly Ala Glu Pro Val Leu Ser Pro Ala Val Glu
      100              105              110
Thr Arg

```

<210> 537  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

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<400> 537
gtgcacatcg gcggcaccga cttcgacaaa caactctcgc tggctggcat gatgccgctg
60
ttcggctacg gcagccgcat gaagagcggc gcctacatgc ccaccagcca ccacatgaac
120
ctggcgacct ggcacacccat caactcgggtg tactcgcaaa aatcccagct ggccctgggc
180
agcatgcgct acgacatcga agacaccggc ggcacgcacc gcctgttcaa gctgatcgaa
240
cagcgtgctg ggcactggct tgccatggaa gtggaagaaa ccaagatcca gctcacccat
300
caagacagcc gccacgtgcc gctggaccgc atcgaagcgg gcctgagcgt agacctgagc
360
cgggcgctgt tcgaatcgtc catcgacaac ctgctcgaac gcgt
404

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<210> 538  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

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<400> 538
Met Met Pro Leu Phe Gly Tyr Gly Ser Arg Met Lys Ser Gly Ala Tyr
1      5      10      15
Met Pro Thr Ser His His Met Asn Leu Ala Thr Trp His Thr Ile Asn
20     25     30
Ser Val Tyr Ser Gln Lys Ser Gln Leu Ala Leu Gly Ser Met Arg Tyr
35     40     45
Asp Ile Glu Asp Thr Gly Gly Ile Asp Arg Leu Phe Lys Leu Ile Glu
50     55     60
Gln Arg Ala Gly His Trp Leu Ala Met Glu Val Glu Glu Thr Lys Ile
65     70     75     80
Gln Leu Thr His Gln Asp Ser Arg His Val Pro Leu Asp Arg Ile Glu
85     90     95
Ala Gly Leu Ser Val Asp Leu Ser Arg Ala Leu Phe Glu Ser Ser Ile
100    105    110
Asp Asn Leu Leu Glu Arg .

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115

&lt;210&gt; 539

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 539

```

nnacgcgtga aaaagaagaa aatgaaggaa agcgaggctg acagcgagggt gaagcatcaa
60
ccaattttca taaaagaag attgaagctt tttgaaatac tgaagaaaga ccatcagctc
120
ttacttgcca tttatggaaa aaagggggat acaagcaaca tcacacagt aagagtggct
180
gatgggcaaa cagtgcagg ggaagtctgg aaaacaacgc cttaccaagt ggctgctgaa
240
attagtcagg aactggctga aagcacggta atagccaaag tcaatgggtga actgtgggac
300
ctggaccgcc cattggaagg ggactcttct cttagagctgc ttacatttga taatagggaa
360
gctcaagctg tgagtatttt aaaaccagac agccaaactt tgggtagtta tgttgtaaac
420
tacattatat aagaggccac atattgaatt cacgaatggt gagttttttg ggggtttcta
480
agatttaaaa tttgattatt gatgtttaat aaatatttgc ctcattgaatg ttaa
534

```

&lt;210&gt; 540

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 540

```

Xaa Arg Val Lys Lys Lys Lys Met Lys Glu Ser Glu Ala Asp Ser Glu
1      5      10      15
Val Lys His Gln Pro Ile Phe Ile Lys Glu Arg Leu Lys Leu Phe Glu
20     25     30
Ile Leu Lys Lys Asp His Gln Leu Leu Ala Ile Tyr Gly Lys Lys
35     40     45
Gly Asp Thr Ser Asn Ile Ile Thr Val Arg Val Ala Asp Gly Gln Thr
50     55     60
Val Gln Gly Glu Val Trp Lys Thr Thr Pro Tyr Gln Val Ala Ala Glu
65     70     75     80
Ile Ser Gln Glu Leu Ala Glu Ser Thr Val Ile Ala Lys Val Asn Gly
85     90     95
Glu Leu Trp Asp Leu Asp Arg Pro Leu Glu Gly Asp Ser Ser Leu Glu
100    105    110
Leu Leu Thr Phe Asp Asn Glu Glu Ala Gln Ala Val Ser Ile Leu Lys
115    120    125
Pro Asp Ser Gln Thr Leu Gly Ser Tyr Val Val Asn Tyr Ile Ile
130    135    140

```

&lt;210&gt; 541

&lt;211&gt; 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 541

ggtaccgagc tgcgcgtgtg gtatgcggcc ttctatgcc aagaatgga caagcccatg  
 60  
 ctgaagcagg ccggctctgg cgtccacgct gcaggcacc cagaaaacag cgccccctg  
 120  
 gagtcggagc ccagccagtg ggcgtgtaaa gtgtgttctg ccaccttctt ggagctgcag  
 180  
 ctctcaatg gtaaggagga cgtgtgggga gccccagttg taaaactcct gtgtcgattt  
 240  
 ctctctgact tacgctgtca cctgtctgcg gctgtcgggg gtgtcccaga ctttgtcctg  
 300  
 tctgccccat tgccccacaa tgtagtcgcc agaaccaagg ctttctcagg gtttaaagct  
 360  
 tctgggcagt cccgcttccc acccccgacc cctgcaggcc tcaactctca ctctctctg  
 420  
 ttgggaagtt gcatttcagc tgggcgcctt gactctggag cactggcagg ggccaggggc  
 480  
 caggagccag ccgtggcatg tgtgtgcac tcttgccctt gttgtctcta cttgacagcc  
 540  
 ccctcacgcg t  
 551

&lt;210&gt; 542

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 542

Met Asp Lys Pro Met Leu Lys Gln Ala Gly Ser Gly Val His Ala Ala  
 1 5 10 15  
 Gly Thr Pro Glu Asn Ser Ala Pro Val Glu Ser Glu Pro Ser Gln Trp  
 20 25 30  
 Ala Cys Lys Val Cys Ser Ala Thr Phe Leu Glu Leu Gln Leu Leu Asn  
 35 40 45  
 Gly Lys Glu Asp Val Trp Gly Ala Pro Val Val Lys Leu Leu Cys Arg  
 50 55 60  
 Phe Leu Ser Asp Leu Arg Cys His Leu Ser Ala Ala Val Gly Gly Val  
 65 70 75 80  
 Pro Asp Phe Val Leu Ser Ala Pro Leu Pro His Asn Val Val Ala Arg  
 85 90 95  
 Thr Lys Ala Phe Ser Gly Phe Lys Ala Ser Gly Gln Ser Arg Phe Pro  
 100 105 110  
 Pro Pro Thr Pro Ala Gly Leu Thr Pro His Ser Ser Trp Leu Gly Ser  
 115 120 125  
 Cys Ile Ser Ala Gly Arg Leu Asp Ser Gly Ala Leu Ala Gly Ala Arg  
 130 135 140  
 Gly Gln Glu Pro Ala Val Ala Cys Val Val His Ser Cys Leu Cys Cys  
 145 150 155 160  
 Leu Tyr Leu Thr Ala Pro Ser Arg  
 165

<210> 543  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 543  
 nnaaaagccgg acatgaatac ccgcattgct ggcaaaactg tcctgaccat cattctggcc  
 60  
 ggggggcaaag gcagccgcct ggccccgatg accgatcagg tggccaaacc agccgtgccg  
 120  
 tttatgggga cgtaccgcct gattgaacttt tcgctgtcca acattgtcca cagcgggcttg  
 180  
 caggacgtct ggatcattga gcaaaacctg ccccatagct taaacgagca cctggctggg  
 240  
 gggcgctcct gggatctgga ccgcaccgcg ggtggcctga aggtcatgcc gcccttttcc  
 300  
 ggccctgccg atgaggacgg tggcttttcc gaaggcaacg cacacgcgt  
 349

<210> 544  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 544  
 Xaa Lys Pro Asp Met Asn Thr Arg Ile Ala Gly Lys Thr Val Leu Thr  
 1 5 10 15  
 Ile Ile Leu Ala Gly Gly Lys Gly Ser Arg Leu Ala Pro Met Thr Asp  
 20 25 30  
 Gln Val Ala Lys Pro Ala Val Pro Phe Met Gly Thr Tyr Arg Leu Ile  
 35 40 45  
 Asp Phe Ser Leu Ser Asn Ile Val His Ser Gly Leu Gln Asp Val Trp  
 50 55 60  
 Ile Ile Glu Gln Asn Leu Pro His Ser Leu Asn Glu His Leu Ala Gly  
 65 70 75 80  
 Gly Arg Ser Trp Asp Leu Asp Arg Thr Arg Gly Gly Leu Lys Val Met  
 85 90 95  
 Pro Pro Phe Ser Gly Pro Ala Asp Glu Asp Gly Gly Phe Ser Glu Gly  
 100 105 110  
 Asn Ala His Ala  
 115

<210> 545  
 <211> 390  
 <212> DNA  
 <213> Homo sapiens

<400> 545  
 catgatgcaa aaacagacat gcttatttca aaatataaaa gtgaaaaaga tcgttttagca  
 60  
 caagaaattg ttgggtgcat cacagggttct gcaatgccgg gtggttcagc aaaccgtatc  
 120  
 ccaataaag caggctcaaa tccagaagggt tctattgcaa cgcgttttat tgcagaaaca  
 180

atgtataacg aactcaaaac agtggattta actattcaaa atgctggcgg tgtacgcgca  
 240  
 gatattttac cggggaatgt aacctttaac gatgcttata ctttcttacc tttcgggaat  
 300  
 acgttatata cctataaaat ggaaagttca ttagtgaaac aagtgcctga agatgcaatg  
 360  
 ctatttgctt tgggtcccc ccccccccc  
 390

<210> 546  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 546  
 His Asp Ala Lys Thr Asp Met Leu Ile Ser Lys Tyr Lys Ser Glu Lys  
 1 5 10 15  
 Asp Arg Leu Ala Gln Glu Ile Val Gly Val Ile Thr Gly Ser Ala Met  
 20 25 30  
 Pro Gly Gly Ser Ala Asn Arg Ile Pro Asn Lys Ala Gly Ser Asn Pro  
 35 40 45  
 Glu Gly Ser Ile Ala Thr Arg Phe Ile Ala Glu Thr Met Tyr Asn Glu  
 50 55 60  
 Leu Lys Thr Val Asp Leu Thr Ile Gln Asn Ala Gly Gly Val Arg Ala  
 65 70 75 80  
 Asp Ile Leu Pro Gly Asn Val Thr Phe Asn Asp Ala Tyr Thr Phe Leu  
 85 90 95  
 Pro Phe Gly Asn Thr Leu Tyr Thr Tyr Lys Met Glu Ser Ser Leu Val  
 100 105 110  
 Lys Gln Val Leu Glu Asp Ala Met Leu Phe Ala Leu Gly Pro Pro Pro  
 115 120 125  
 Pro Pro  
 130

<210> 547  
 <211> 306  
 <212> DNA  
 <213> Homo sapiens

<400> 547  
 aagcttggtt ttctgatttt tattcaaatc tctatcatgg atgaagcatg cagtttcaga  
 60  
 atcagttcag tgttgacaac atatcaagat attctgcagt caatctcaat gtatgttcat  
 120  
 gaagcctcca acatatatttg tgggatacca tctttgtcag gcattgtgct aggcactgtc  
 180  
 cctgcagtga ataagaaaga caggatttct gtatttatgg ggcttagtac caagttgttc  
 240  
 tcaaaactttc atgtttgtgt atacaaatca gctgaggcct tcactaaact cnnnnnccnn  
 300  
 nnnccnn  
 306

<210> 548

<211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 548  
 Met Asp Glu Ala Cys Ser Phe Arg Ile Ser Ser Val Leu Thr Thr Tyr  
 1 5 10 15  
 Gln Asp Ile Leu Gln Ser Ile Ser Met Tyr Val His Glu Ala Ser Asn  
 20 25 30  
 Ile Phe Cys Gly Ile Pro Ser Leu Ser Gly Ile Val Leu Gly Thr Val  
 35 40 45  
 Pro Ala Val Asn Lys Lys Asp Arg Ile Ser Val Phe Met Gly Leu Ser  
 50 55 60  
 Thr Lys Leu Phe Ser Asn Phe His Val Cys Val Tyr Lys Ser Ala Glu  
 65 70 75 80  
 Ala Phe Thr Lys Leu Xaa Xaa Xaa Xaa  
 85 90

<210> 549  
 <211> 780  
 <212> DNA  
 <213> Homo sapiens

<400> 549  
 nnacgcgtac ttccaacacc tatgctccag tatggaggac gggtaaagtc tcttgtaaat  
 60  
 gttttaatca tacacatatt gtctgtaagt atgaagagaa aggcatatca gaaatatttc  
 120  
 aattcagcga tttgaaatgt ttactttctg tttattgaaa atttttggtc tttttcacca  
 180  
 tgttattttt ttctcctcgt gtagaatcgg acagtagcaa caccgagcca tggagtatgg  
 240  
 gacatgcgag ggaacaatt ccacacagga gttgaaatca aaatgtgggc tatcgcttgt  
 300  
 tttgccacac agagggcagt cagagaagaa atattgaagg gtttcacaga ccagctgcgt  
 360  
 aagatttcta aggatgcagg gatgcccatc cagggccagc catgcttctg caaatatgca  
 420  
 cagggggcag acagcgtaga gcccatgttc cgccatctca agaacacata ttctggccta  
 480  
 cagcttatta tcgtcatcct gccggggaag acaccagtgt atgcggaagt gaaacgtgta  
 540  
 ggagacacac ttttgggtat ggctacacaa tgtgttcaag tcaagaatgt aataaaaaca  
 600  
 ttctctcaaa ctctgtcaaa cttgtgccta aagataaatg ttaaactcgg agggatcaat  
 660  
 aatattcttg tacctcatca aagaccttct gtgttccagc aaccagtgat ctttttggga  
 720  
 gccgatgtca ctcatccacc tgctggtgat ggaagaagc cttctattgc tgctgttgta  
 780

<210> 550  
 <211> 192  
 <212> PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 550

```

Asn Arg Thr Val Ala Thr Pro Ser His Gly Val Trp Asp Met Arg Gly
 1           5           10           15
Lys Gln Phe His Thr Gly Val Glu Ile Lys Met Trp Ala Ile Ala Cys
      20           25           30
Phe Ala Thr Gln Arg Gln Cys Arg Glu Glu Ile Leu Lys Gly Phe Thr
      35           40           45
Asp Gln Leu Arg Lys Ile Ser Lys Asp Ala Gly Met Pro Ile Gln Gly
      50           55           60
Gln Pro Cys Phe Cys Lys Tyr Ala Gln Gly Ala Asp Ser Val Glu Pro
65           70           75           80
Met Phe Arg His Leu Lys Asn Thr Tyr Ser Gly Leu Gln Leu Ile Ile
      85           90           95
Val Ile Leu Pro Gly Lys Thr Pro Val Tyr Ala Glu Val Lys Arg Val
      100          105          110
Gly Asp Thr Leu Leu Gly Met Ala Thr Gln Cys Val Gln Val Lys Asn
      115          120          125
Val Ile Lys Thr Ser Pro Gln Thr Leu Ser Asn Leu Cys Leu Lys Ile
      130          135          140
Asn Val Lys Leu Gly Gly Ile Asn Asn Ile Leu Val Pro His Gln Arg
145          150          155          160
Pro Ser Val Phe Gln Gln Pro Val Ile Phe Leu Gly Ala Asp Val Thr
      165          170          175
His Pro Pro Ala Gly Asp Gly Lys Lys Pro Ser Ile Ala Ala Val Val
      180          185          190

```

&lt;210&gt; 551

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 551

```

nnggatccgg attatggggc tattgctaac aggtcaacgg ccatcaaggt gtcggttgcc
60
gtggcaccgc cagccccgga gcctactcgc gagccaccga cgaactccgc tccttccgag
120
gaaccgtcct cgtcgtcaat cgcaccggtc ccgccggccc cgacgactgc agtaccacg
180
actagttcgt cgtcgggccc ctgaccgatg cgcccatcgg cggggtcatc tggctggcgc
240
tagcgggggc ttcgatgtcc ccataccaca ggcgtccgcta aattgccenc c
291

```

&lt;210&gt; 552

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 552

```

Xaa Asp Pro Asp Tyr Gly Ala Ile Ala Asn Arg Ser Thr Ala Ile Lys
 1           5           10           15
Val Leu Val Ala Val Ala Pro Pro Ala Pro Glu Pro Thr Arg Glu Pro

```

```

      20      25      30
Pro Thr Asn Ser Ala Pro Ser Glu Glu Pro Ser Ser Ser Ser Ile Ala
      35      40      45
Pro Val Pro Pro Ala Pro Thr Thr Ala Val Pro Thr Thr Ser Ser Ser
      50      55      60
Ser Gly Arg
65

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<210> 553  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

```

<400> 553
ctagccgatg taggattagt aggttttccg agcgtgggta aatctacctt actotcaata
60
gtatctaaag ccaaacccgaa aattggtgca tatcatttca ctacaattaa acctaactta
120
gggtgtgttt ccacaaaaga tcaacgtagt tttgttatgg cagatttacc aggtttaatt
180
gaagggtgcat ctgatggcgt tggattagga catcaatttt taagacatgt agagagaaca
240
aaagttattg ttcacatgat tgatatgagc ggttctgaag gtagagaacc tattgaagat
300
tataaagtca ttaatcaaga attagctgcg tacgagcaac gtttagaaga tagacctcaa
360
atcgtagtag ctaacaagat ggatttacct gaatcacaag ataatttaaa cttgttttaa
420
gaagaaattg gcgaagatgt gccagttatt ccagtttcaa caataacgcg t
471

```

<210> 554  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 554
Leu Ala Asp Val Gly Leu Val Gly Phe Pro Ser Val Gly Lys Ser Thr
1      5      10      15
Leu Leu Ser Ile Val Ser Lys Ala Lys Pro Lys Ile Gly Ala Tyr His
20     25     30
Phe Thr Thr Ile Lys Pro Asn Leu Gly Val Val Ser Thr Lys Asp Gln
35     40     45
Arg Ser Phe Val Met Ala Asp Leu Pro Gly Leu Ile Glu Gly Ala Ser
50     55     60
Asp Gly Val Gly Leu Gly His Gln Phe Leu Arg His Val Glu Arg Thr
65     70     75     80
Lys Val Ile Val His Met Ile Asp Met Ser Gly Ser Glu Gly Arg Glu
85     90     95
Pro Ile Glu Asp Tyr Lys Val Ile Asn Gln Glu Leu Ala Ala Tyr Glu
100    105    110
Gln Arg Leu Glu Asp Arg Pro Gln Ile Val Val Ala Asn Lys Met Asp
115    120    125
Leu Pro Glu Ser Gln Asp Asn Leu Asn Leu Phe Lys Glu Glu Ile Gly

```

130 135 140  
 Glu Asp Val Pro Val Ile Pro Val Ser Thr Ile Thr Arg  
 145 150 155

<210> 555  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 555  
 tctagagatt gagaacaatt atggatacag aaatggttga ttccgtcaaa tatattcgag  
 60  
 attcgaatc atgtgaggct cgcggtgctgg agatcttagc cagaaggccg tccatgatgg  
 120  
 tgcagatctt gcgtggcgac ggcttaatta acgaagacca gagattagtc agattatggc  
 180  
 ttaataaagt acctagaatt gtctgcctgc ttctccggct tagtggttc gtcgctgcgg  
 240  
 caataggtgc cgtgcggtg tgggcggcgg ctcccggtaa tcccgatctt gttcacgcgt  
 300

<210> 556  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 556  
 Met Asp Thr Glu Met Val Asp Ser Val Lys Tyr Ile Arg Asp Ser Glu  
 1 5 10 15  
 Ser Cys Glu Ala Arg Val Leu Glu Ile Leu Ala Arg Arg Pro Ser Met  
 20 25 30  
 Met Val Gln Ile Leu Arg Gly Asp Gly Leu Ile Asn Glu Asp Gln Arg  
 35 40 45  
 Leu Val Arg Leu Trp Leu Asn Lys Val Pro Arg Ile Val Arg Leu Leu  
 50 55 60  
 Leu Arg Leu Ser Val Phe Val Ala Ala Ile Gly Ala Arg Ala Val  
 65 70 75 80  
 Trp Ala Ala Ala Ser Gly Asn Pro Asp Leu Val His Ala  
 85 90

<210> 557  
 <211> 678  
 <212> DNA  
 <213> Homo sapiens

<400> 557  
 atcttcccgg tttatgagga gaatgcgctg cgtgtcgagt ttttcggcga cgaaattgag  
 60  
 gccctcacga cgatgcaccc gctcaccggg gaggtcatca gcgaggacga gcaggtctac  
 120  
 gtgttcccgg ctaccacta tgctgcgggc ccggaacgta tggagcgggc catagcgctc  
 180  
 atccagcagg agctcgagga gcgcctggcc gttctagagc gtgatgggaa actgttgagg  
 240

gcccaacggt tacgtatgcg tactacctac gatatcgaga tgatgcagca ggtcggtgcc  
 300  
 tgtgctggca tcgaaaacta ttcgcggcac atcgacggac gcgctcccgg ctcagccccg  
 360  
 aactgtctgc ttgactactt tccggaagat tttgtgctcg tcattgatga atcccacgtg  
 420  
 accgtcccgc agattggcgg gatgtatgag ggggacatga gccgcaagcg gacattggta  
 480  
 gaacatggtt tccgactgcc cagcgcgatg gacaaccgtc ctctcaaatt cgacgagttc  
 540  
 acccagcgga tcggccagac tgtctacctg tccgccacgc ccggttcgta cgagaccgaa  
 600  
 cgagctcacg gcgtgctcga acaaatcatt cgtccgacag gtctggtgga tccggagatt  
 660  
 atcgtcaagc ctacgcgt  
 678

<210> 558  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 558  
 Ile Phe Pro Val Tyr Glu Glu Asn Ala Leu Arg Val Glu Phe Phe Gly  
 1 5 10 15  
 Asp Glu Ile Glu Ala Leu Thr Thr Met His Pro Leu Thr Gly Glu Val  
 20 25 30  
 Ile Ser Glu Asp Glu Gln Val Tyr Val Phe Pro Ala Thr His Tyr Val  
 35 40 45  
 Ala Gly Pro Glu Arg Met Glu Arg Ala Ile Ala Ser Ile Gln Gln Glu  
 50 55 60  
 Leu Glu Glu Arg Leu Ala Val Leu Glu Arg Asp Gly Lys Leu Leu Glu  
 65 70 75 80  
 Ala Gln Arg Leu Arg Met Arg Thr Thr Tyr Asp Ile Glu Met Met Gln  
 85 90 95  
 Gln Val Gly Ala Cys Ala Gly Ile Glu Asn Tyr Ser Arg His Ile Asp  
 100 105 110  
 Gly Arg Ala Pro Gly Ser Ala Pro Asn Cys Leu Leu Asp Tyr Phe Pro  
 115 120 125  
 Glu Asp Phe Val Leu Val Ile Asp Glu Ser His Val Thr Val Pro Gln  
 130 135 140  
 Ile Gly Gly Met Tyr Glu Gly Asp Met Ser Arg Lys Arg Thr Leu Val  
 145 150 155 160  
 Glu His Gly Phe Arg Leu Pro Ser Ala Met Asp Asn Arg Pro Leu Lys  
 165 170 175  
 Phe Asp Glu Phe Thr Gln Arg Ile Gly Gln Thr Val Tyr Leu Ser Ala  
 180 185 190  
 Thr Pro Gly Ser Tyr Glu Thr Glu Arg Ala His Gly Val Val Glu Gln  
 195 200 205  
 Ile Ile Arg Pro Thr Gly Leu Val Asp Pro Glu Ile Ile Val Lys Pro  
 210 215 220  
 Thr Arg  
 225

<210> 559  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 559  
 ggatcctatg gagctcaagt tcaagaaaaa aaactgtaaa catggagggt ttgtgataaa  
 60  
 tggaatgcag tcagagggaa ggaactgccn gcttaaagtg tcctatgctg cgctttccag  
 120  
 agcaatacag tacacagtgg agggcgctac catggagtct ctgggtgaaa gttaggatgg  
 180  
 tatggtggca ccagccaaac ttctcagggt tcataggcag acagcagctc tggagtggaa  
 240  
 ctaaagtgtg tccaggagct gaagccctta atcagctagg gctcacacag agtcaaggta  
 300  
 ggggtcaaaaa cattcagtct gggaccatat ctaga  
 335

<210> 560  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 560  
 Met Glu Cys Ser Gln Arg Glu Gly Thr Ala Xaa Leu Lys Cys Pro Met  
 1 5 10 15  
 Leu Arg Phe Pro Glu Gln Tyr Ser Thr Gln Trp Arg Ala Leu Pro Trp  
 20 25 30  
 Ser Leu Trp Val Lys Val Arg Met Val Trp Trp His Gln Pro Asn Phe  
 35 40 45  
 Ser Gly Phe Ile Gly Arg Gln Gln Leu Trp Ser Gly Thr Lys Val Tyr  
 50 55 60  
 Pro Gly Ala Glu Ala Leu Asn Gln Leu Gly Leu Thr Gln Ser Gln Gly  
 65 70 75 80  
 Arg Val Lys Asn Ile Gln Ser Gly Thr Ile Ser Arg  
 85 90

<210> 561  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<400> 561  
 ngcgcgcccc ctctccgat ggcgcgagg atccagccca agcctctgac ccgcaagccg  
 60  
 atcctgctgc agcggatgga ggggtcccag gaggtggtga atatggccgt gatcgtgccc  
 120  
 aaagaggagg gcgtcatcag cgtctccgag gacaggacag ttcgtgtttg gttaaagaga  
 180  
 gacagtggac agtattggcc aagcgtatac catgcaatgc cttgagttta tattgtcaga  
 240  
 agattataac aagatgactc ctgtgaaaaa ctatcaagcg catcagagca gagtgcagat  
 300

gatacctgttt gtcctggagc tggagtgggt gctgagcaca ggacaggaca agcaatttgc  
 360  
 ctggcactgc tctgagagtg ggcagcgcct gggagggttat cggaccagtg ctgtggcctc  
 420  
 aggcctgcaa tttgatgttg aaacccggca tgtgtttatc ggtgaccact caggcca  
 477

<210> 562  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 562  
 Xaa Ala Pro Pro Pro Met Ala Ala Glu Ile Gln Pro Lys Pro Leu  
 1 5 10 15  
 Thr Arg Lys Pro Ile Leu Leu Gln Arg Met Glu Gly Ser Gln Glu Val  
 20 25 30  
 Val Asn Met Ala Val Ile Val Pro Lys Glu Glu Gly Val Ile Ser Val  
 35 40 45  
 Ser Glu Asp Arg Thr Val Arg Val Trp Leu Lys Arg Asp Ser Gly Gln  
 50 55 60  
 Tyr Trp Pro Ser Val Tyr His Ala Met Pro  
 65 70

<210> 563  
 <211> 403  
 <212> DNA  
 <213> Homo sapiens

<400> 563  
 ccatggcaga cagggagctg agcggcctgc ggacccagggt gcaccagagc atggtgcccc  
 60  
 tgctcctaca cctgaaggac caatgcccaa ctgtcgccac gggcaatgcc caccccaaga  
 120  
 aaaggaaggg aaaaggcctc aaccttgccc agggctggaa cccacaggag gccagggtac  
 180  
 ggggcagacg gatggcagca gcaactgcctg agagttgggg gagctccac ggggcagcaa  
 240  
 gtggcgggca gagggctctgg ccatctgcac tggtttctgt gaccacagtt ggctgccccg  
 300  
 ctccccact gcaccactga cgaagcgaga ccctgcctca aaaaaaaaaa caaaaacaaa  
 360  
 aacaaaaaca aaactcaaac ttcacactgg agatctgtgc aat  
 403

<210> 564  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 564  
 Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val His Gln Ser  
 1 5 10 15  
 Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro Thr Val Ala

	20		25		30										
Thr	Gly	Asn	Ala	His	Pro	Lys	Lys	Arg	Lys	Gly	Lys	Gly	Leu	Asn	Leu
	35						40					45			
Gly	Gln	Gly	Trp	Asn	Pro	Gln	Glu	Ala	Arg	Val	Arg	Gly	Arg	Arg	Met
	50					55					60				
Ala	Ala	Ala	Leu	Pro	Glu	Ser	Trp	Gly	Ser	Ser	His	Gly	Ala	Ala	Ser
65					70					75				80	
Gly	Gly	Gln	Arg	Val	Trp	Pro	Ser	Ala	Leu	Val	Ser	Val	Thr	Thr	Val
			85						90					95	
Gly	Leu	Pro	Ala	Pro	Pro	Leu	His	His							
			100					105							

&lt;210&gt; 565

&lt;211&gt; 311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 565

```

ncctctccat ggagcagccc catcttcact cttcacctgg ggccaggcct tccacagcag
60
ccaccaccca ggcaccacag agaggctgcg cggaggacac aggagagagg gagcccacgg
120
gcacgatctc caccggcttt cccagctccc tgggtcagcc ccacgggacc tctcctcctc
180
tctccacat ctccaagcca gccttgcata tagtaagagc tgtgatcagg atggaaagag
240
gcttggggcg cacagacctg gacaatgtcc cagtgagggc tggaggtgct agaagggcac
300
aggaggcccc n
311

```

&lt;210&gt; 566

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 566

Met	Glu	Gln	Pro	His	Leu	His	Ser	Ser	Pro	Gly	Ala	Arg	Pro	Ser	Thr
1				5					10					15	
Ala	Ala	Thr	Thr	Gln	Arg	Pro	Gln	Arg	Gly	Cys	Ala	Glu	Asp	Thr	Gly
			20					25					30		
Glu	Arg	Glu	Pro	Thr	Gly	Thr	Ile	Ser	Thr	Gly	Phe	Pro	Ser	Ser	Leu
		35				40						45			
Gly	Gln	Pro	His	Gly	Thr	Ser	Pro	Pro	Leu	Ser	His	Ile	Ser	Lys	Pro
	50					55				60					
Ala	Leu	His	Ile	Val	Arg	Ala	Val	Ile	Arg	Met	Glu	Arg	Gly	Leu	Gly
65					70					75				80	
Arg	Thr	Asp	Leu	Asp	Asn	Val	Pro	Val	Arg	Ala	Gly	Gly	Ala	Arg	Arg
			85					90						95	
Ala	Gln	Glu	Ala	Pro											
			100												

&lt;210&gt; 567

&lt;211&gt; 929

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

atcacatcgg tcgctgaacc ccgacgagcc tcacctgtgc gaaatattca tccttgagat  
 60  
 cagcccacgt gccgtcgacc tctacctcgg tgagggtcgc gggcgggtac caacagccga  
 120  
 cctcgtcttc ggctccactc atggcggcaa gttccgctgc cagtccgggg atcgtcgggg  
 180  
 catggggcat gatgagcagg ttatccacat cgtcgtcgat ttctccgatg cgcgcacgca  
 240  
 cggatatcagt gccgcagtaa tagagggtc gcatgaattc gaccggacaa tccagtggga  
 300  
 ggcagtccca ggtctggcgg gtgcgtaggg catcggagac cagagcatgt ccaacattgc  
 360  
 gcagtcctaa acgcgtgccg acctcacggg cctgacggcg cccacgctcg gtgagcggac  
 420  
 gctcccgatc cccgcccgga gcatgggatg cgggctgtgc atgtctcatg aggaacagag  
 480  
 tgtgcatgga tccatcgttg cacttcgcgg tcgcccggtt tctacgatgt tggcatgccg  
 540  
 ttgacggatt tgggcattga tgaggcgcgt acctaccgcc cgaacgtccc tgaaccgat  
 600  
 ggtttcgact ctttttgggc cgagaccctc gatgagtatt ccggcgttcc ccaagatctg  
 660  
 acggcgggtgc ctttcgataa ccgtcaggct ctgatagata cctgggattt gtcgtgggtg  
 720  
 ggggtatcaca actctcgggt gagcgggtga ttacatgccc cagccgctgt gaacggccca  
 780  
 ttcccccttg tcatcgagta cctcgggtac tcgagttcgc gtggtgtgcc gattggatca  
 840  
 gtcttcgctg ctgctggcta tgcacatc gtcgtcgatc cacgtgggtca ggggtggggc  
 900  
 caccacaacct tgacggaaaa ctgtccgga  
 929

&lt;210&gt; 568

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 568

Met Pro Leu Thr Asp Leu Gly Ile Asp Glu Ala Arg Thr Tyr Arg Pro  
 1 5 10 15  
 Asn Val Pro Glu Pro Asp Gly Phe Asp Ser Phe Trp Ala Glu Thr Leu  
 20 25 30  
 Asp Glu Tyr Ser Gly Val Pro Gln Asp Leu Thr Ala Val Pro Phe Asp  
 35 40 45  
 Asn Arg Gln Ala Leu Ile Asp Thr Trp Asp Leu Ser Trp Val Gly Tyr  
 50 55 60  
 His Asn Ser Arg Val Ser Gly  
 65 70



<210> 569  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<400> 569  
 ncgcaaaactt caacggtgcc atctgccata ttccagggat gccagatttg gatggaaaat  
 60  
 accatatcac tctcgattca gaattcgtac ttgatttagt ggcctttaac aaaacgctac  
 120  
 ctgtcgatta cttaatggtc gaaggaacgg aacttggtga ttcaaactg gaagaactac  
 180  
 ctgaatgccc atattatcca aaagatcaaa agccaatcgt gattgggaaa aacacaaaac  
 240  
 tcaaggaaca accaacagcc gttgctctct tctcggatgt tgataaacgg ccagagatta  
 300  
 aatcaaaaat cttagaccgc tatgataatg atattgaaat cegtacttgg ggcggtactt  
 360  
 cccatgtcta n  
 371

<210> 570  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 570  
 Met Pro Asp Leu Asp Gly Lys Tyr His Ile Thr Leu Asp Ser Glu Phe  
 1 5 10 15  
 Val Leu Asp Leu Val Ala Phe Asn Lys Thr Leu Pro Val Asp Tyr Leu  
 20 25 30  
 Met Val Glu Gly Thr Glu Leu Val Tyr Ser Asn Met Glu Glu Leu Pro  
 35 40 45  
 Glu Cys Pro Tyr Tyr Pro Lys Asp Gln Lys Pro Ile Val Ile Gly Lys  
 50 55 60  
 Asn Thr Lys Leu Lys Glu Gln Pro Thr Ala Val Ala Leu Phe Ser Asp  
 65 70 75 80  
 Val Asp Lys Arg Pro Glu Ile Lys Ser Lys Ile Leu Asp Arg Tyr Asp  
 85 90 95  
 Asn Asp Ile Glu Ile Arg Thr Trp Gly Gly Thr Ser His Val Xaa  
 100 105 110

<210> 571  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 571  
 nacgcgtatc ttcgctggtc cacaccagac gtggcattaa acgacgtcac aagaacgaca  
 60  
 ccgggccttg acgggcccac gcacgaagag gccaaagacac tgaccgagac tactgtttcc  
 120  
 gttccacact ccttcgccga cctcggcgtc cgagaagata tctgccaggc gctggaaggg  
 180

gtgggaattg tctccccgtt cccgatccag gccatgtcga tcccgattgc cgtegagggc  
 240  
 acggatctta ttgggcaggc gcgtactggc actggcaaaa cactcgctt cggcatacc  
 300  
 atcttgacgc gcatcacct gcccggtgac gaaggttggg aagaactcac caccaaaggc  
 360  
 aagcccccaa gactcgtga tgtccccta cccgggagct aggtcgg  
 407

<210> 572  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 572  
 Leu Thr Glu Thr Thr Val Ser Val Pro Thr Ser Phe Ala Asp Leu Gly  
 1 5 10 15  
 Val Arg Glu Asp Ile Cys Gln Ala Leu Glu Gly Val Gly Ile Val Ser  
 20 25 30  
 Pro Phe Pro Ile Gln Ala Met Ser Ile Pro Ile Ala Val Glu Gly Thr  
 35 40 45  
 Asp Leu Ile Gly Gln Ala Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe  
 50 55 60  
 Gly Ile Thr Ile Leu Gln Arg Ile Thr Leu Pro Gly Asp Glu Gly Trp  
 65 70 75 80  
 Glu Glu Leu Thr Thr Lys Gly Lys Pro Pro Ser Thr Arg Asp Val Pro  
 85 90 95  
 Leu Pro Gly Ser  
 100

<210> 573  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 573  
 acgcgtctac cgtaggatcc atgaccttcc gcaagaccga ccaccacaag aacgccattg  
 60  
 actacgaggt cgccggacta atgtggctcg ctgctgcccg gccagatggg gccggcatcg  
 120  
 tcgaggtgct cgaccacggc aagggatggc tcaccgaacc cgaattgtcc actgggcacc  
 180  
 ccaccgcga ggcagccgag gactttggcc gccgactggc tcacaccac gcagccggg  
 240  
 cctcacacct gggggctgca cctgacgggt ttgttcccga cgatgggtat atcgccgtg  
 300  
 ctccctgcc actgccgtcc gaaccaatct cctcctgggg agagtgttac gctcagtgcc  
 360  
 gcatcgaacc atatatggac agtctcgacg ctg  
 393

<210> 574  
 <211> 124  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 574

```

Met Thr Phe Arg Lys Thr Asp His His Lys Asn Ala Ile Asp Tyr Glu
 1           5           10           15
Val Ala Gly Leu Met Trp Leu Ala Ala Ala Arg Pro Asp Gly Ala Gly
          20           25           30
Ile Val Glu Val Leu Asp His Gly Lys Gly Trp Leu Thr Glu Pro Glu
      35           40           45
Leu Ser Thr Gly His Pro Thr Arg Glu Ala Ala Glu Asp Phe Gly Arg
 50           55           60
Arg Leu Ala His Thr His Ala Ala Gly Ala Ser His Leu Gly Ala Ala
65           70           75           80
Pro Asp Gly Phe Val Pro Asp Asp Gly Tyr Ile Gly Arg Ala Pro Leu
          85           90           95
Pro Leu Pro Ser Glu Pro Ile Ser Ser Trp Gly Glu Phe Tyr Ala Gln
      100           105           110
Cys Arg Ile Glu Pro Tyr Met Asp Ser Leu Asp Ala
      115           120

```

&lt;210&gt; 575

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

```

nntatccatg cagacatggg accaggggtct ctgagggcag gaagcaaagt gggtagggg
60
gatgggacaa gatgccttgg tgctaaggcc tctggagctg gagctgggta tagggatgat
120
accaggcacc ctgagtcact cgcacctcac aatggggccg cttctgggag ccagtgggct
180
tatggggctg gcaatgtgct gggttatgag gatggatcag aacttccagg gcctcagggg
240
actgggggtca gaacagccta tggagaaagg tcaaggggcc ttgggcctag gagtacaggg
300
ccaggggggtg aggcaggctt tagagatggt tcaggaggcc tccaaggaat gggatcagca
360
gatgggcccc gt
372

```

&lt;210&gt; 576

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 576

```

Xaa Ile His Ala Asp Met Gly Pro Gly Ser Leu Arg Ala Gly Ser Lys
 1           5           10           15
Val Gly Glu Gly Asp Gly Thr Arg Cys Pro Gly Ala Lys Ala Ser Gly
          20           25           30
Ala Gly Ala Gly Tyr Arg Asp Asp Thr Arg His Pro Glu Ser Leu Ala
      35           40           45
Pro His Asn Gly Ala Ala Ser Gly Ser Gln Trp Ala Tyr Gly Ala Gly

```

```

      50              55              60
Asn Val Leu Gly Tyr Glu Asp Gly Ser Glu Leu Pro Gly Pro Gln Gly
65              70              75              80
Thr Gly Val Arg Thr Ala Tyr Gly Glu Arg Ser Arg Gly Leu Gly Pro
      85              90              95
Arg Ser Thr Gly Pro Gly Gly Glu Ala Gly Phe Arg Asp Gly Ser Gly
      100              105              110
Gly Leu Gln Gly Met Gly Ser Ala Asp Gly Pro Gly
      115              120

```

<210> 577  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

```

<400> 577
nagcgcaatg tcatgatgtc ggatttgtca atgtcggatt tctcatccca gccatcacc
60
ccgcagcgcc gggcgcgat gaccagcggc cagcgccgtg aacagctcat cagcgtggcc
120
cgtcgcctct tcgcagacaa tggcatggca gggacctccg tcgaggagat cgccgctacc
180
gcgggagtct ccaaaccctt catctacgag catttcgggt ccaaggatgg gctgtacgcc
240
gtcgtcgtag accgcgaggt acgccaccta caagattccc tcaacgccgc catgaccgcg
300
ccaaagcaag gcccgaacg caccctggag tcagcgttac tggccctgct ggactacatc
360
gacgaccgtc cagacggttt tcggatcacc tcgcgagact cctcggtcgg ttcagccacc
420
ggttcgtacg cg
432

```

<210> 578  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 578
Met Thr Ser Gly Gln Arg Arg Glu Gln Leu Ile Ser Val Ala Arg Arg
1              5              10              15
Leu Phe Ala Asp Asn Gly Met Ala Gly Thr Ser Val Glu Glu Ile Ala
      20              25              30
Ala Thr Ala Gly Val Ser Lys Pro Val Ile Tyr Glu His Phe Gly Ser
      35              40              45
Lys Asp Gly Leu Tyr Ala Val Val Val Asp Arg Glu Val Arg His Leu
      50              55              60
Gln Asp Ser Leu Asn Ala Ala Met Thr Arg Pro Lys Gln Gly Pro Lys
65              70              75              80
Arg Thr Leu Glu Ser Ala Val Leu Ala Leu Leu Asp Tyr Ile Asp Asp
      85              90              95
Arg Pro Asp Gly Phe Arg Ile Ile Ser Arg Asp Ser Ser Val Gly Ser
      100              105              110
Ala Thr Gly Ser Tyr Ala

```

115

<210> 579  
 <211> 320  
 <212> DNA  
 <213> Homo sapiens

<400> 579  
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 60  
 ctgctcccag ggatcaccac cttaccacagc gggccacctg ctcccccggt ccccgcggcg  
 120  
 cccggccctt ggctgcgagc accctcttcc agcctgaagc tgtccgacac agaggacgtc  
 180  
 tttcctcgcc gcgcggggcc gctcgaggtc ccggccgaca gccgcgtggt cgtgcaggcg  
 240  
 gccttgcccc gtccctcccc gcgctggggc ctggccctgc accgctgctc agtgacgccg  
 300  
 tcctcacgcc cggccccggg  
 320

<210> 580  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 580  
 Met Leu Gly Thr Val Leu Leu Leu Ala Leu Leu Pro Gly Ile Thr Thr  
 1 5 10 15  
 Leu Pro Ser Gly Pro Pro Ala Pro Pro Phe Pro Ala Ala Pro Gly Pro  
 20 25 30  
 Trp Leu Arg Arg Pro Leu Phe Ser Leu Lys Leu Ser Asp Thr Glu Asp  
 35 40 45  
 Val Phe Pro Arg Arg Ala Gly Pro Leu Glu Val Pro Ala Asp Ser Arg  
 50 55 60  
 Val Phe Val Gln Ala Ala Leu Ala Arg Pro Ser Pro Arg Trp Gly Leu  
 65 70 75 80  
 Ala Leu His Arg Cys Ser Val Thr Pro Ser Ser Arg Pro Ala Pro  
 85 90 95

<210> 581  
 <211> 419  
 <212> DNA  
 <213> Homo sapiens

<400> 581  
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 60  
 cacgtcggca tgggcttcaa gacgccagta cgcattgaca gcgtcgaccc caagaccgc  
 120  
 gaagcccgcg aggtgcattt ccgcccgtcg ctgttcaact atgccaagac cacggtggag  
 180  
 accaagcagc tgaccggcga cctgggtttc tccggtttca agctgttcaa ggcgccggaa  
 240

ctggatcgcc atgacgtgct gtcgtttctc ggcgccagtt acttccgtgc ggtggacgca  
 300  
 acccgccagt acggcctctc cgcacgcggc ctggcgattg atacctacgc gaaaaaacgc  
 360  
 gaggaattcc ccgacttcac gcagttctgg ttcgaaaccc cgagcaagga cccacgcgt  
 419

<210> 582

<211> 139

<212> PRT

<213> Homo sapiens

<400> 582

Xaa	Asp	Gly	Asn	His	Ser	Leu	Trp	Lys	Glu	Leu	Asn	Gly	Gln	Leu	Asp
1				5					10					15	
Val	Gln	Phe	Phe	His	Val	Gly	Met	Gly	Phe	Lys	Thr	Pro	Val	Arg	Met
			20					25					30		
His	Ser	Val	Asp	Pro	Lys	Thr	Arg	Glu	Ala	Arg	Glu	Val	His	Phe	Arg
			35				40					45			
Pro	Ser	Leu	Phe	Asn	Tyr	Ala	Lys	Thr	Thr	Val	Asp	Thr	Lys	Gln	Leu
	50					55					60				
Thr	Gly	Asp	Leu	Gly	Phe	Ser	Gly	Phe	Lys	Leu	Phe	Lys	Ala	Pro	Glu
65				70					75					80	
Leu	Asp	Arg	His	Asp	Val	Leu	Ser	Phe	Leu	Gly	Ala	Ser	Tyr	Phe	Arg
			85					90					95		
Ala	Val	Asp	Ala	Thr	Arg	Gln	Tyr	Gly	Leu	Ser	Ala	Arg	Gly	Leu	Ala
		100						105					110		
Ile	Asp	Thr	Tyr	Ala	Lys	Lys	Arg	Glu	Glu	Phe	Pro	Asp	Phe	Thr	Gln
		115					120					125			
Phe	Trp	Phe	Glu	Thr	Pro	Ser	Lys	Asp	Pro	Arg					
	130						135								

<210> 583

<211> 407

<212> DNA

<213> Homo sapiens

<400> 583

cttttgatca atgctgatgg cacgaagcta tcgaaaaggc cgggtgatgt ccgcgtagct  
 60  
 gattatatgg agcagggatg ggagccggag acgctggtga acctagttgc cctcacgggc  
 120  
 tatagctatg cgaatttggg gcatgctgat catgatgtca agacgatgaa cgaactcatc  
 180  
 cgtgactttg agcttactcg tatctcccat acgcgagcca cactcccat ggacaagctt  
 240  
 gtgtttttga acaagcatca cttgacaaat aagctggcgc tcgccacgac gtgtgagcag  
 300  
 accaaacaag acctattgtc gcgtatccgg ccgatcacta cctcgtggta cggcgattat  
 360  
 tcagatgatt atatcctgcg cgtcgtaaca ctgggacccc aacgcgt  
 407

<210> 584

<211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 584  
 Leu Leu Ile Asn Ala Asp Gly Thr Lys Leu Ser Lys Arg Ser Gly Asp  
   1                  5                  10                  15  
 Val Arg Val Ala Asp Tyr Met Glu Gln Gly Trp Glu Pro Glu Thr Leu  
           20                  25                  30  
 Val Asn Leu Val Ala Leu Thr Gly Tyr Ser Tyr Ala Asn Leu Glu His  
       35                  40                  45  
 Ala Asp His Asp Val Lys Thr Met Asn Glu Leu Ile Arg Asp Phe Glu  
       50                  55                  60  
 Leu Thr Arg Ile Ser His Thr Arg Ala Thr Leu Pro Met Asp Lys Leu  
   65                  70                  75                  80  
 Val Phe Leu Asn Lys His His Leu Thr Asn Lys Leu Ala Leu Ala Thr  
           85                  90                  95  
 Thr Cys Glu Gln Thr Lys Gln Asp Leu Leu Ser Arg Ile Arg Pro Ile  
           100                  105                  110  
 Thr Thr Ser Trp Tyr Gly Asp Tyr Ser Asp Asp Tyr Ile Leu Arg Val  
       115                  120                  125  
 Val Thr Leu Gly Pro Gln Arg  
       130                  135

<210> 585  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

<400> 585  
 nnacgcgtcc tcgctggata tgaggtctgtg aagaggggaac gctgcgtcat tgatctggac  
 60  
 gatattttgt tgtgcgcgggt gggattgttg gttcagcacc gtgacatcac tgaggagatt  
 120  
 cgggctcgggt accgacattt cgttgtcgac gaataccagg acgtttctcc gctgcagcat  
 180  
 aggttgcttg aactgtgggt tggcgatcga aatgatgtat gcgtcgtggg agatccgcac  
 240  
 caggccattc actcttatgc aggcgcacga gctgactacc tcctcgactt cgttgccgat  
 300  
 catcctggcg ctaaaccgat cgatttggtt cgcaactacc gctccactcc cgagatcggt  
 360  
 cagttggcca atgaagttct tgtcaaccgt atgactccag aggaggcttt ggaacatggc  
 420  
 aggggagtca cattggtttc gcggggtcga tccggtcccg agcccatcta tcaggctctc  
 480  
 ggggacgatg cctccgaagc tt  
 502

<210> 586  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 586

```

Xaa Arg Val Leu Ala Gly Tyr Glu Ala Val Lys Arg Glu Arg Cys Val
 1           5           10           15
Ile Asp Leu Asp Asp Ile Leu Leu Cys Ala Val Gly Leu Leu Val Gln
 20           25           30
His Arg Asp Ile Thr Glu Glu Ile Arg Ala Arg Tyr Arg His Phe Val
 35           40           45
Val Asp Glu Tyr Gln Asp Val Ser Pro Leu Gln His Arg Leu Leu Glu
 50           55           60
Leu Trp Phe Gly Asp Arg Asn Asp Val Cys Val Val Gly Asp Pro His
 65           70           75           80
Gln Ala Ile His Ser Tyr Ala Gly Ala Arg Ala Asp Tyr Leu Leu Asp
 85           90           95
Phe Val Ala Asp His Pro Gly Ala Lys Arg Ile Asp Leu Val Arg Asn
100           105           110
Tyr Arg Ser Thr Pro Glu Ile Val Gln Leu Ala Asn Glu Val Leu Val
115           120           125
Asn Arg Met Thr Pro Glu Glu Ala Leu Glu His Gly Arg Gly Val Thr
130           135           140
Leu Val Ser Arg Gly Arg Ser Gly Pro Glu Pro Ile Tyr Gln Ala Leu
145           150           155           160
Gly Asp Asp Ala Ser Glu Ala
165

```

&lt;210&gt; 587

&lt;211&gt; 746

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 587

```

gcgtcctgcc tcgagggcct cgggagcttc cgctgcctct gttggccagg ctacagcggc
60
gagctgtgcg aggtggacga ggacgagtgt gcatcgagcc cctgccagca tgggggcccga
120
tgccctgcagc gctctgaccc ggccctctac ggggggtgtcc aggcgcgctt ccctggcgcc
180
ttcagcttcc gccatgctgc gggtttctctg tgccactgcc ctcttggtt tgagggagcc
240
gactgcggtg tggaggtgga cgagtgtgcc tcacggccat gctcaatgg aggccactgc
300
caggacctgc ccaatggctt ccagtgtcac tgcccagatg gctacgcagg gccgacatgt
360
gaggaagatg tggatgaatg cctgtccgat ccctgcctgc acggcggaac ctgcagtgc
420
actgtggcag gctatatctg caggtgcccc gagacctggg gtgggcgcga ctgttctgtg
480
cagctcactg gctgccaggg ccacacctgc ccgtggctg ccacctgcat ccctatcttc
540
gagctctggg tccacagtta cgtctgccac tgcccacctg gtacccatgg accgttctgt
600
ggccagaata ccacctcttc tgtgatggct gggagcccca ttcaggcatc agtgccagct
660
ggtggcccc tgggtctggc actgaggttt cgcaccacac tgcccgtgg gaccttggcc
720

```



actcgcaatg acaccaagga aagctt  
746

<210> 588  
<211> 248  
<212> PRT  
<213> Homo sapiens

<400> 588  
Ala Ser Cys Leu Glu Gly Leu Gly Ser Phe Arg Cys Leu Cys Trp Pro  
1 5 10 15  
Gly Tyr Ser Gly Glu Leu Cys Glu Val Asp Glu Asp Glu Cys Ala Ser  
20 25 30  
Ser Pro Cys Gln His Gly Gly Arg Cys Leu Gln Arg Ser Asp Pro Ala  
35 40 45  
Leu Tyr Gly Gly Val Gln Ala Phe Pro Gly Ala Phe Ser Phe Arg  
50 55 60  
His Ala Ala Gly Phe Leu Cys His Cys Pro Pro Gly Phe Glu Gly Ala  
65 70 75 80  
Asp Cys Gly Val Glu Val Asp Glu Cys Ala Ser Arg Pro Cys Leu Asn  
85 90 95  
Gly Gly His Cys Gln Asp Leu Pro Asn Gly Phe Gln Cys His Cys Pro  
100 105 110  
Asp Gly Tyr Ala Gly Pro Thr Cys Glu Glu Asp Val Asp Glu Cys Leu  
115 120 125  
Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val Ala Gly  
130 135 140  
Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys Ser Val  
145 150 155 160  
Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala Thr Cys  
165 170 175  
Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His Cys Pro  
180 185 190  
Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe Ser Val  
195 200 205  
Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro Leu  
210 215 220  
Gly Leu Ala Leu Arg Phe Arg Thr Thr Leu Pro Ala Gly Thr Leu Ala  
225 230 235 240  
Thr Arg Asn Asp Thr Lys Glu Ser  
245

<210> 589  
<211> 381  
<212> DNA  
<213> Homo sapiens

<400> 589  
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60  
ccagtacctc tgcaagccac tatgagtgtc gcaactggta tccagccatc gcctgtaaat  
120  
gtggttggtg taacttcagc tttaggtcag cagccttcca tttccagttt ggctcaaccc  
180

cagctacat attctcaggc ggctcctcca gtgcaaactc cccttccagg ggcaccacca  
 240  
 ccccaacagt tacagtatgg acaacagcaa ccaatgggtt ctacacagat ggccccaggc  
 300  
 catgtcaaat cagtactca aaatcctgct tcagagtatg tacaacagca gccaatctt  
 360  
 caaacagcaa tgtcctccgg a  
 381

<210> 590

<211> 127

<212> PRT

<213> Homo sapiens

<400> 590

Ile	Ser	Gln	Val	Gln	Leu	Gln	Ser	Gln	Glu	Leu	Ser	Tyr	Gln	Gln	Lys
1				5					10					15	
Gln	Gly	Leu	Gln	Pro	Val	Pro	Leu	Gln	Ala	Thr	Met	Ser	Ala	Ala	Thr
		20						25					30		
Gly	Ile	Gln	Pro	Ser	Pro	Val	Asn	Val	Val	Gly	Val	Thr	Ser	Ala	Leu
		35					40					45			
Gly	Gln	Gln	Pro	Ser	Ile	Ser	Ser	Leu	Ala	Gln	Pro	Gln	Leu	Pro	Tyr
		50				55				60					
Ser	Gln	Ala	Ala	Pro	Pro	Val	Gln	Thr	Pro	Leu	Pro	Gly	Ala	Pro	Pro
65					70					75				80	
Pro	Gln	Gln	Leu	Gln	Tyr	Gly	Gln	Gln	Gln	Pro	Met	Val	Ser	Thr	Gln
				85					90					95	
Met	Ala	Pro	Gly	His	Val	Lys	Ser	Val	Thr	Gln	Asn	Pro	Ala	Ser	Glu
			100						105					110	
Tyr	Val	Gln	Gln	Gln	Pro	Ile	Leu	Gln	Thr	Ala	Met	Ser	Ser	Gly	
			115					120						125	

<210> 591

<211> 684

<212> DNA

<213> Homo sapiens

<400> 591

tcgaccatgg atcatctgcg ccacggcatc cacctgcgtg gttatgcgca gaagaaccgg  
 60  
 aagcaggaat acaagcgcgga gtcggtcacc ctgttctccg agctgctgga ctgatcaag  
 120  
 cgcgattcga ttcgggtcct cttccacgtc caggggcccgg gggaaaaatc cgtatcgaaa  
 180  
 naaaaagcgc gcctgcgtca ggaagccgaa gccctggccc agcgcgatgca gttcgagcac  
 240  
 gctgaagccc caggcctgga cgcgccgga atcctcggtg aagaagtcga tgcgccttg  
 300  
 gccaccgcgc cggtagcga cgagcagaag ctgggccgta acgaactgtg ctactgcggt  
 360  
 tcgggcaaga agtacaagca ctgccacggt cagatcagct aaggtcttta ccggatactg  
 420  
 aaatacctgc gccgcgaccg gcattagccg tcgcggcggt ttccatttg aaacactgcc  
 480

cttgtgacgg cagtgcagat atcacattaa aaggagggca ttcattgggtg ttggttctgg  
 540  
 gtccttgccc tacgttgcaac ccggttgccc gttttgaact cggatcgccc tcggccggta  
 600  
 tcaagcgcgc tgggcgcaag gatgtggtgg cgatgcgctg cgccgaaggt tccacgggtg  
 660  
 cgggggtgtt taccctcaac gcgt  
 684

<210> 592

<211> 133

<212> PRT

<213> Homo sapiens

<400> 592

Ser	Thr	Met	Asp	His	Leu	Arg	His	Gly	Ile	His	Leu	Arg	Gly	Tyr	Ala
1				5				10					15		
Gln	Lys	Asn	Pro	Lys	Gln	Glu	Tyr	Lys	Arg	Glu	Ser	Phe	Thr	Leu	Phe
		20						25					30		
Ser	Glu	Leu	Leu	Asp	Ser	Ile	Lys	Arg	Asp	Ser	Ile	Arg	Val	Leu	Phe
	35					40					45				
His	Val	Gln	Gly	Pro	Gly	Glu	Lys	Ser	Val	Ser	Lys	Xaa	Lys	Ala	Arg
	50				55					60					
Leu	Arg	Gln	Glu	Ala	Glu	Ala	Leu	Ala	Gln	Arg	Met	Gln	Phe	Glu	His
65				70					75					80	
Ala	Glu	Ala	Pro	Gly	Leu	Asp	Ala	Pro	Glu	Ile	Leu	Gly	Glu	Glu	Val
			85						90				95		
Asp	Val	Ala	Leu	Ala	Thr	Ala	Pro	Val	Arg	Asn	Glu	Gln	Lys	Leu	Gly
		100						105					110		
Arg	Asn	Glu	Leu	Cys	Tyr	Cys	Gly	Ser	Gly	Lys	Lys	Tyr	Lys	His	Cys
	115						120					125			
His	Gly	Gln	Ile	Ser											
	130														

<210> 593

<211> 615

<212> DNA

<213> Homo sapiens

<400> 593

nnacgcgtgc agaccgcgcg gagtctcgct ccggtgcgga tagcgtagg ctcccaaacc  
 60  
 tgtgaaaccg tcacggtaga gcgtcgtggc gggctaccac ttagagcggc ccgattcacc  
 120  
 gataccatcc ccgcgccgct aggccagcca cgatggtcga cggccaccat ccagaccca  
 180  
 gtcataccta ctacacgtgg tcgattcgtg atcggccccg tcatgatgcg caccatcgac  
 240  
 ccgtttggca tggcccgcga tcacaccgat ctcggtcagg ttgccgaagt cattgtcacg  
 300  
 ccaaggatcg tcgatttggg cgcctccggg gagctcgggg gtcagggatt cgacacaagg  
 360  
 tcctcagcga tccatgccgg acgacgtggg cccgacgatg ccatggtgcg cgattggcac  
 420



cgagagcaagg ctcagaaaaa tgtcccagcc aaaaacatgg tacatgcctg tcatcaggca  
 240  
 agtcttcaaa gagcggctgg gaccaggggc cgagggacct cgttagagg cggttaggg  
 300  
 gga  
 303

<210> 596  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 596  
 Met Leu Leu Asn Pro Gly Asp Leu Thr Val Glu Gly Arg Pro His Gly  
 1 5 10 15  
 Ala Ile Gly Pro Arg Arg Ala Gly Ala Phe Ala Arg Ala Ser Ala Glu  
 20 25 30  
 Ala Arg Leu Cys Pro Gln Pro Pro Arg Asn Ser Leu Pro Gly Thr Val  
 35 40 45  
 Ser Ala Leu Arg Ser Pro Glu Gln Gly Ser Glu Lys Cys Pro Ser Gln  
 50 55 60  
 Lys His Gly Thr Cys Leu Ser Ser Gly Lys Ser Ser Lys Ser Gly Trp  
 65 70 75 80  
 Asp Gln Gly Pro Arg Asp Leu Val  
 85

<210> 597  
 <211> 2709  
 <212> DNA  
 <213> Homo sapiens

<400> 597  
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 60  
 aagaaccaca tgggtggagaa gacctacgaa tgtaagaat gcgggaaatc ctttggcgat  
 120  
 ctctgtcccc ggaggaaaca catgaggatt cacatcgtca agaaacccgt ggaatgtcgg  
 180  
 cagtgcggga agaccttcg aaaccagtcc atccttaaga ctcacatgaa ctctcacact  
 240  
 ggagagaaac catacgggtg cgatctctgc gggaaagctt tcagcgcgag ttcaaacctc  
 300  
 accgcacaca ggaagataca cacgcaagag agacgctacg aatgcgccgc ctgcgggaaa  
 360  
 gtcttcggtg actatttata ccggcggagg cacatgagcg ttcaccttgt aaagaaacga  
 420  
 gttgagtgtg ggcattgtgg caaggccttc aggaaccagt caacgctgaa gacgcacatg  
 480  
 cgaagccaca cgggggagaa accgtacgaa tgcgatcact gtgggaaggc cttcagcata  
 540  
 ggctccaacc tgaatgtgca caggcggatc cacaccgggg agaagcccta cgaatgcctt  
 600  
 gtctgcggga aagccttcag cgaccactca tccctcagga gccacgtgaa aactcaccgg  
 660

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720  
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1680  
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1920  
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2280

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<210> 598  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 598  
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 Glu Cys Gly Lys Ser Phe Gly Asp Leu Val Ser Arg Arg Lys His Met  
 35 40 45  
 Arg Ile His Ile Val Lys Lys Pro Val Glu Cys Arg Gln Cys Gly Lys  
 50 55 60  
 Thr Phe Arg Asn Gln Ser Ile Leu Lys Thr His Met Asn Ser His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Tyr Gly Cys Asp Leu Cys Gly Lys Ala Phe Ser Ala  
 85 90 95  
 Ser Ser Asn Leu Thr Ala His Arg Lys Ile His Thr Gln Glu Arg Arg  
 100 105 110  
 Tyr Glu Cys Ala Ala Cys Gly Lys Val Phe Gly Asp Tyr Leu Ser Arg  
 115 120 125  
 Arg Arg His Met Ser Val His Leu Val Lys Lys Arg Val Glu Cys Arg  
 130 135 140  
 His Cys Gly Lys Ala Phe Arg Asn Gln Ser Thr Leu Lys Thr His Met  
 145 150 155 160  
 Arg Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Asp His Cys Gly Lys  
 165 170 175  
 Ala Phe Ser Ile Gly Ser Asn Leu Asn Val His Arg Arg Ile His Thr  
 180 185 190  
 Gly Glu Lys Pro Tyr Glu Cys Leu Val Cys Gly Lys Ala Phe Ser Asp  
 195 200 205  
 His Ser Ser Leu Arg Ser His Val Lys Thr His Arg Gly Glu Lys Leu  
 210 215 220  
 Phe Xaa Cys His Pro Cys Gly Lys Gly Ser Ser Glu Arg Ala Xaa Leu  
 225 230 235 240

<210> 599  
 <211> 340  
 <212> DNA  
 <213> Homo sapiens

<400> 599  
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 120  
 caggcatgtt tgccgggccc catcccttgc acttgacgtc cgtggcctat cggccgaggg  
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 240  
 tggggctcgt cggaggacga ggatgtgagt ggcgatggct ttgcgcgact gggcgtattc  
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 340

<210> 600  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 600  
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 Arg Ala Lys Pro Ser Pro Leu Thr Ser Ser Ser Asp Glu Pro His  
 20 25 30  
 Ser Leu Pro Thr Arg Ser Ser Arg Gly Thr Pro Thr His Gly Ser Asn  
 35 40 45  
 Cys Arg Pro Ala Pro Arg Pro Ile Gly His Gly Leu Gln Val Gln Gly  
 50 55 60  
 Met Arg Pro Gly Lys His Ala Trp Ala Lys Arg Cys Arg Leu Arg Cys  
 65 70 75 80  
 Thr Ala Thr Pro Ser Thr Cys Ala Met Thr Pro Asn Lys Arg Ser Asp  
 85 90 95  
 Thr Thr Glu Arg Ser His His Asp Val Lys Ser Arg Glu Ala Arg  
 100 105 110

<210> 601  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 601  
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 120  
 cagctgtcga tggccccgct gtctatcggt aatctgcaat cgggtggacgt ggtgcgcggc  
 180  
 ggcggcgccg tgcgtacgg gccgcagaac gtcggcgccg tgatcaactt cgttaccgca  
 240



gacattccca aaacgttttg cggtgccgcc agcgtacaaa cccaggggtgc cagccacggc  
 300  
 ggccctgaaga ccctgaccag cgcctccgtg ggccggcaccg cagacaacgg cctcggcgcc  
 360  
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 421

<210> 602  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 602  
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 20 25 30  
 Ala Val Ala Pro Tyr Gly Gln Pro Gln Leu Ser Met Ala Pro Leu Ser  
 35 40 45  
 Ile Gly Asn Leu Gln Ser Val Asp Val Val Arg Gly Gly Ala Val  
 50 55 60  
 Arg Tyr Gly Pro Gln Asn Val Gly Gly Val Ile Asn Phe Val Thr Arg  
 65 70 75 80  
 Asp Ile Pro Lys Thr Phe Gly Gly Ala Ala Ser Val Gln Thr Gln Gly  
 85 90 95  
 Ala Ser His Gly Gly Leu Lys Thr Leu Thr Ser Ala Ser Val Gly Gly  
 100 105 110  
 Thr Ala Asp Asn Gly Leu Gly Ala Glu Leu Leu Tyr Ser Gly Leu His  
 115 120 125  
 Gly Gln Gly Tyr Arg Asp Asn Asn Asp Asn Thr Asp  
 130 135 140

<210> 603  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 603  
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 120  
 gtgctggatt acctgccggg cctgatgccg gctgacaaac ctcgttacct tatgggcgtt  
 180  
 ggcaaaccgg aagacctcgt agaggggtgt gcgccgggtg tggacatgtt cgattgcgtg  
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 309

<210> 604

<211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 604  
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 Asp Lys Ile Gly Phe Asp Gly Leu Ala Ile Gly Gly Leu Ser Val Gly  
           20                  25                  30  
 Glu Pro Lys His Glu Met Ile Lys Val Leu Asp Tyr Leu Pro Gly Leu  
           35                  40                  45  
 Met Pro Ala Asp Lys Pro Arg Tyr Leu Met Gly Val Gly Lys Pro Glu  
           50                  55                  60  
 Asp Leu Val Glu Gly Val Arg Arg Gly Val Asp Met Phe Asp Cys Val  
   65                  70                  75                  80  
 Met Pro Thr Arg Asn Ala Arg Asn Gly His Leu Phe Ile Asp Thr Gly  
           85                  90                  95  
 Val Leu Lys Ile Arg Asn Ala  
           100

<210> 605  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<400> 605  
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 120  
 caccacatc acatttcagt accttggcta tcttcaatcg gaaaaaaga ttggagtaaa  
 180  
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 300  
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 420  
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 428

<210> 606  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 606  
 Met Asp Glu Leu Thr Asn Tyr Thr Tyr Leu Ala Gln Ala Tyr Thr Ile  
   1                  5                  10                  15  
 Asn Asn Gln Tyr Gln Arg Ile Gly Thr Glu Val Gly Val Arg Gln Ser  
           20                  25                  30  
 Ser Glu Ala Ile Asn Val Leu Thr Ala Ser Leu Ser Gln Asp Val Ala

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      35              40              45
Trp Gly Pro Leu His Trp Glu Ser Val Ile Thr Phe Gln Asn Ser Ser
  50              55              60
Ser Gln Thr Ala Leu Pro Leu Pro Lys Leu Asn Ile Tyr Ser Asn Leu
  65              70              75              80
Phe Phe Arg Leu Lys Ile Ala Lys Val Leu Lys Cys Asp Val Gly Ala
      85              90              95
Asp Val Arg Tyr Phe Thr Lys Tyr Tyr Ala Pro Asp Tyr Ser Pro Ala
      100              105              110
Leu Gly Gln Phe Val Val Gln Glu Asn Thr Asp Arg Val Glu Ile Gly
      115              120              125
Asn Tyr Pro Ile Val Asn Ala
      130              135

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&lt;210&gt; 607

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 607

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  120
gttttcaacg gcaaacatta tcaaattgta aagaaagagg atgacctatt caaattgacc
  180
aaaagcaatt gttacaagtt gagcaacata aaatttaaca attggaaata cttgtacttg
  240
acaacgcacg gtgtgtacaa cgtgttcacc aacagctttc attcgagctg tccatttttg
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  360
gacgcg
  366

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&lt;210&gt; 608

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 608

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Asp His Asp Glu Leu Trp Ala Tyr Thr Tyr Glu Asn Val Met Ala Leu
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Asn Leu Pro Pro Asp Ile Val Cys Lys Gly Phe Phe Arg Lys Leu Glu
      20              25              30
Asn Val Val Thr Gly Val Asn Leu Val Phe Asn Gly Lys His Tyr Gln
      35              40              45
Ile Val Lys Lys Glu Asp Asp Leu Phe Lys Leu Thr Lys Ser Asn Cys
      50              55              60
Tyr Lys Leu Ser Asn Ile Lys Phe Asn Asn Trp Lys Tyr Leu Tyr Leu
  65              70              75              80
Thr Thr His Gly Val Tyr Asn Val Phe Thr Asn Ser Phe His Ser Ser
      85              90              95
Cys Pro Phe Leu Leu Gly Thr Thr Leu Pro Gln Thr Phe Lys Lys Pro

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 115                      120

<210> 609  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 609  
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 120  
 taccagcct ggaagcagga ccccccacgc acggaatcgc cggcttccaa gtcgtcgccc  
 180  
 ccgaagcctc aaacttcccc cgccccgtac gccgggcccgg ctccgaagac accggccaca  
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<210> 610  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 610  
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 Lys Gln Asp Pro His Ala Thr Glu Ser Pro Ala Ser Lys Ser Ser Pro  
 20                      25                      30  
 Pro Lys Pro Gln Thr Ser Pro Ala Pro Tyr Ala Gly Pro Ala Pro Lys  
 35                      40                      45  
 Thr Pro Ala Thr Pro Gly Pro Ser Gly Ala Gly Ala Pro Pro Trp Trp  
 50                      55                      60  
 Trp Arg Val Glu Pro  
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<210> 611  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 611  
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 120  
 acgcgcatca ggcgcaccaa aggtcaggta gcgactcttg agcaagcgct tgatgcaggc  
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 gcgaaatgtc ctgcaattct tcagcagctt gcggccgttc gtggcgagct caacggattg  
 240  
 atggcaacgg ttctggagag ctatctgcgg gaagagtttc ccagtagcga aatcaggagc  
 300

gattcgcaga acaagtccat tgacgagacc atctctatcg tccgctccta tctgcggtag  
360

aggcaccagg gtgtcctcgg tgagggcaaa ttt  
393

<210> 612

<211> 119

<212> PRT

<213> Homo sapiens

<400> 612

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			20					25					30		
Pro	Glu	Glu	Lys	Lys	Gln	Ala	Leu	Thr	Arg	Ile	Arg	Arg	Ile	Lys	Gly
		35					40					45			
Gln	Val	Ala	Thr	Leu	Glu	Gln	Ala	Leu	Asp	Ala	Gly	Ala	Lys	Cys	Pro
		50				55				60					
Ala	Ile	Leu	Gln	Gln	Leu	Ala	Ala	Val	Arg	Gly	Ala	Val	Asn	Gly	Leu
65				70					75					80	
Met	Ala	Thr	Val	Leu	Glu	Ser	Tyr	Leu	Arg	Glu	Glu	Phe	Pro	Ser	Ser
			85					90					95		
Glu	Ile	Arg	Ser	Asp	Ser	Gln	Asn	Lys	Ser	Ile	Asp	Glu	Thr	Ile	Ser
			100					105					110		
Ile	Val	Arg	Ser	Tyr	Leu	Arg									
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<210> 613

<211> 567

<212> DNA

<213> Homo sapiens

<400> 613

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180  
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240  
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300  
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420  
tttatgtggc tatttgaggg aagaagagga aagtaccacc gttcaaaaat ttatagacca  
480  
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540  
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567

<210> 614  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 614  
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 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala  
 35 40 45  
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu  
 50 55 60  
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln  
 65 70 75 80  
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn  
 85 90 95  
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu  
 100 105 110  
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala  
 115 120 125  
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu  
 130 135 140  
 Glu Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu  
 145 150 155 160  
 Leu His Lys Asn Val Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg  
 165 170 175  
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp  
 180 185

<210> 615  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 615  
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 180  
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 240  
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 300  
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 420  
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 600  
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 685

<210> 616

<211> 213

<212> PRT

<213> Homo sapiens

<400> 616

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			20					25						30	
Gly	Ala	Cys	Ala	Gly	Pro	Leu	Val	Ala	Ala	Ala	Val	Ile	Leu	Asp	Asp
		35					40					45			
Arg	Arg	Ser	Gly	Arg	Ile	Ala	Gly	Leu	Ala	Asp	Ser	Lys	Thr	Leu	Ser
		50				55					60				
Ala	Ala	Lys	Arg	Glu	Ala	Leu	Phe	Asn	Val	Ile	Met	Asp	Lys	Ala	Leu
65					70					75					80
Ala	Val	Ser	Trp	Val	Arg	Val	Glu	Ala	Asp	Glu	Cys	Asp	Arg	Leu	Gly
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Met	Gln	Glu	Ala	Asp	Ile	Ser	Gly	Leu	Arg	Arg	Ala	Val	Val	Arg	Leu
			100					105						110	
Gly	Val	Glu	Pro	Gly	Tyr	Val	Leu	Ser	Asp	Gly	Phe	Pro	Val	Asp	Gly
			115				120					125			
Leu	Thr	Val	Pro	Asp	Leu	Gly	Met	Trp	Lys	Gly	Asp	Ser	Val	Cys	Ala
		130				135					140				
Cys	Val	Ala	Ala	Ala	Ser	Ile	Val	Ala	Lys	Val	Ala	Arg	Asp	Arg	Ile
145					150					155					160
Met	Ile	Ala	Met	Asp	Ala	Glu	Ile	Pro	Gly	Tyr	Asp	Phe	Ala	Val	His
				165					170					175	
Lys	Gly	Tyr	Ala	Thr	Ala	Leu	His	Gln	Arg	Arg	Leu	Lys	Glu	Leu	Gly
			180					185					190		
Pro	Ser	Arg	Gln	His	Arg	Met	Ser	Tyr	Ala	Asn	Val	Arg	Arg	Ala	Ala
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Arg	Leu	His	Ser	Ser											
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<210> 617

<211> 337

<212> DNA

<213> Homo sapiens

<400> 617

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tcggcgccaa cggccagcgc caggccatgt tctcga aaa cgtttcgggc cttcccggag  
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 240  
 gctgcaacgt cgtgccaatc gagatggccg aggagtcca gcgtcggggc gtccgcgtcg  
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<210> 618

<211> 112

<212> PRT

<213> Homo sapiens

<400> 618

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Gly	Arg	Ala	Thr	Ala	Arg	Phe	Pro	Ala	Ser	Thr	Pro	Ser	Ser	Ser	Cys
			20					25					30		
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Asn	Phe	Asp	Leu	Ser	Gln	Gln	Asp	Ser	Ala	Leu	Val	Ile	Ser	Ser	Ser
65					70					75				80	
Ala	Ala	Thr	Ser	Cys	Gln	Ser	Arg	Trp	Pro	Arg	Ser	Ser	Ser	Val	Ala
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<210> 619

<211> 425

<212> DNA

<213> Homo sapiens

<400> 619

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<210> 620



<211> 137  
 <212> PRT  
 <213> Homo sapiens

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 Glu Arg Ala Ser Ile Ala Cys Trp Glu Phe His Leu Ala Ile Glu Lys  
 35 40 45  
 Ser Ile Lys Val Met Ile His Ser Lys Ser Gly Ser Gly Lys His Gly  
 50 55 60  
 His Asn Leu Asp Asp Leu Ile Glu His Leu Ser Lys Phe Glu Ser Gly  
 65 70 75 80  
 Ile Asp Ser Ser Gly Leu Ala Gly Leu Pro Ser Asp Lys Asp Ala Ile  
 85 90 95  
 Lys Leu Arg Tyr Ala Glu Met Ile Lys Thr Pro Ile Asp Ala Phe Glu  
 100 105 110  
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<210> 621  
 <211> 453  
 <212> DNA  
 <213> Homo sapiens

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<210> 622  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 622  
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      20           25           30
Ala Glu Val Ala Gly Arg Ala Met Val Val Glu Glu Leu Asp Met Phe
      35           40           45
Pro Val Glu Cys Val Val Arg Gly Tyr Leu Thr Gly Ser Gly Trp Ala
      50           55           60
Glu Tyr Gln Arg Asn Gln Ala Val Cys Gly Ile Arg Leu Pro Glu Gly
      65           70           75           80
Leu Gln Asn Gly Ser Arg Leu Glu Glu Pro Ile Phe Thr Pro Ala Ile
      85           90           95
Lys Ala Pro Gln Gly Glu His Asp Glu Asn Ile Asp Tyr Leu Arg Leu
      100          105          110
Val Glu Leu Val Gly Pro Xaa Xaa Ser Ala Gln Leu His Asp Leu Ser
      115          120          125
Leu Arg Val Tyr Gln Arg Ala Glu Glu Ile Ala Arg Lys Arg Gly Ile
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<210> 623  
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 <212> DNA  
 <213> Homo sapiens

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345

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<210> 624  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

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<400> 624
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      20           25           30
Gly Thr Ile Ala Gln Ala Glu Asp Leu Pro Pro Asp Asp Thr His Thr
      35           40           45
Gly Ala Glu Leu Val Lys Ser Val Val Asn Ser Ile Thr Cys Val Ser
      50           55           60
Pro Leu Tyr Ile Glu Asp Phe Thr Thr Ile Glu Ile Gln Gly Leu Gly

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```

65          70          75          80
Leu His Cys Val Arg Leu Trp Ala Pro Gly Leu Leu Ala Leu Ser Leu
      85          90          95
Pro Ser Ala Pro Met Arg Ala His Pro Arg Tyr Ala Ala Tyr Gly
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<210> 625  
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 <212> DNA  
 <213> Homo sapiens

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Gln Ala Gly Arg Ala Cys Leu Ser Trp Glu Val Val Gly Trp Val Gly
      35          40          45
Ala Gln Cys Lys Gly Arg Gln Thr Cys Trp Ser Leu Gly Tyr Asp Pro
      50          55          60
Glu Gln Ser Gly Gly Ala Glu Ser Ser Cys Leu Trp Ala Ser Ile Ala
65          70          75          80
Leu Pro Val Asn Tyr Arg Pro Trp Lys Asn His Leu Cys Ile Gln Gln
      85          90          95
Met Ser Ser Ser Ile Met Leu Gly Thr
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<210> 627  
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<211> 1294

<212> PRT

<213> Homo sapiens

<400> 628

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Ile	Leu	Glu	Pro	Ile	Gly	Thr	Glu	Ser	Lys	Val	Ser	Gly	Lys	Asn	Lys
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Glu	His	Ser	Leu	His	Val	Gln	Asp	Pro							
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Ser	Ser	Ser	Ser	Lys	Lys	Asp	Leu	Lys	Ser	Ala	Val	Leu	Ser	Glu	Lys
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Ala	Gly	Phe	Asn	Tyr	Glu	Ser	Pro	Ser	Lys	Gly	Gly	Asn	Phe	Pro	Ser
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Phe	Pro	His	Asp	Glu	Val	Thr	Asp	Arg	Asn	Met	Leu	Ala	Phe	Ser	Ser
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Pro	Ala	Ala	Gly	Gly	Val	Cys	Glu	Pro	Leu	Lys	Ser	Pro	Gln	Arg	Ala
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Glu	Ala	Asp	Asp	Pro	Gln	Asp	Met	Ala	Cys	Thr	Pro	Ser	Gly	Asp	Ser
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Leu	Glu	Thr	Lys	Glu	Asp	Gln	Lys	Met	Ser	Pro	Lys	Ala	Thr	Glu	Glu
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Thr	Gly	Gln	Ala	Gln	Ser	Gly	Gln	Ala	Asn	Cys	Gln	Gly	Leu	Ser	Pro
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Val	Ser	Val	Ala	Ser	Lys	Asn	Pro	Gln	Val	Pro	Ser	Asp	Gly	Gly	Val
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Leu Asp Ser Lys Ile Leu Ala Leu His Asn Met Val Gln Phe Ser His
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Ser Lys Asp Phe Gln Lys Val Asn Arg Ser Val Phe Ser Gly Val Leu
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Gln Asp Ile Asn Ser Ser Arg Pro Val Leu Leu Asn Gly Thr Tyr Asp
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Val Gln Val Thr Ser Gly Gly Thr Phe Ile Gly Ile Gly Arg Lys Thr
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Pro Asp Cys Gln Gly Asn Thr Lys Tyr Phe Arg Cys Lys Phe Cys Asn
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Phe Thr Tyr Met Gly Asn Ser Ser Thr Glu Leu Glu Gln His Phe Leu
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Gln Thr His Pro Asn Lys Ile Lys Ala Ser Leu Pro Ser Ser Glu Val
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Ala Lys Pro Ser Glu Lys Asn Ser Asn Lys Ser Ile Pro Ala Leu Gln
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Ser Ser Asp Ser Gly Asp Leu Gly Lys Trp Gln Asp Lys Ile Thr Val
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Lys Ala Gly Asp Asp Thr Pro Val Gly Tyr Ser Val Pro Ile Lys Pro
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Cys Lys Phe Cys Ser Phe Ser Cys Glu Ser Ser Ser Leu Lys Leu
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465          470          475          480
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Lys Ser Ser Ser Gly Ala Lys Lys Lys Asp Phe Ser Ser Lys Gly Ala
          515          520          525
Glu Asp Asn Met Val Thr Ser Tyr Asn Cys Gln Phe Cys Asp Phe Arg
          530          535          540
Tyr Ser Lys Ser His Gly Pro Asp Val Ile Val Val Gly Pro Leu Leu
545          550          555          560
Arg His Tyr Gln Gln Leu His Asn Ile His Lys Cys Thr Ile Lys His
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Cys Pro Phe Cys Pro Arg Gly Leu Cys Ser Pro Glu Lys His Leu Gly
          580          585          590
Glu Ile Thr Tyr Pro Phe Ala Cys Arg Lys Ser Asn Cys Ser His Cys
          595          600          605
Ala Leu Leu Leu Leu His Leu Ser Pro Gly Ala Ala Gly Ser Ser Arg
          610          615          620
Val Lys His Gln Cys His Gln Cys Ser Phe Thr Thr Pro Asp Val Asp
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Val Leu Leu Phe His Tyr Glu Ser Val His Glu Ser Gln Ala Ser Asp
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Val Lys Gln Glu Ala Asn His Leu Gln Gly Ser Asp Gly Gln Gln Ser

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Gln	Val	Glu	Glu	Glu	Ile	Ser	Arg	His	Tyr	Arg	Arg	Ala	His	Ser	Cys	Gln	Val	Glu	Glu	Glu	Ile	Ser	Arg	His	Tyr	Arg	Arg	Ala	His	Ser	Cys	Gln	Val	Glu	Glu	Glu	Ile	Ser	Arg	His	Tyr	Arg	Arg	Ala	His	Ser	Cys
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Tyr	Lys	Cys	Arg	Gln	Cys	Ser	Phe	Thr	Ala	Ala	Asp	Thr	Gln	Ser	Leu	Tyr	Lys	Cys	Arg	Gln	Cys	Ser	Phe	Thr	Ala	Ala	Asp	Thr	Gln	Ser	Leu	Tyr	Lys	Cys	Arg	Gln	Cys	Ser	Phe	Thr	Ala	Ala	Asp	Thr	Gln	Ser	Leu
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740										745										750																											
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1075										1080										1085																											
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Tyr Pro Leu Phe Gly Leu Pro Phe Val His Asn Asp Phe Gln Ser Glu		
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Ala Asp Trp Leu Arg Phe Trp Ser Lys Tyr Lys Leu Ser Val Pro Gly		1120
	1125	1130
Asn Pro His Tyr Leu Ser His Val Pro Gly Leu Pro Asn Pro Cys Gln		1135
	1140	1145
Asn Tyr Val Pro Tyr Pro Thr Phe Asn Leu Pro Pro His Phe Ser Ala		1150
	1155	1160
Val Gly Ser Asp Asn Asp Ile Pro Leu Asp Leu Ala Ile Lys His Ser		1165
	1170	1175
Arg Pro Gly Pro Thr Ala Asn Gly Ala Ser Lys Glu Lys Thr Lys Ala		1180
1185	1190	1195
Pro Pro Asn Val Lys Asn Glu Gly Pro Leu Asn Val Val Lys Thr Glu		1200
	1205	1210
Lys Val Asp Arg Ser Thr Gln Asp Glu Leu Ser Thr Lys Cys Val His		1215
	1220	1225
Cys Gly Ile Val Phe Leu Asp Glu Val Met Tyr Ala Leu His Met Ser		1230
	1235	1240
Cys His Gly Asp Ser Gly Pro Phe Gln Cys Ser Ile Cys Gln His Leu		1245
	1250	1255
Cys Thr Asp Lys Tyr Asp Phe Thr Thr His Ile Gln Arg Gly Leu His		1260
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Arg Asn Asn Ala Gln Val Glu Lys Asn Gly Lys Pro Lys Glu		1280
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 <212> DNA  
 <213> Homo sapiens

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 300  
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 411

<210> 630  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 630  
 Xaa Ala Phe Ala Glu Glu Gly Thr Gly Ala Ser Thr Phe Gln Leu Ser

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      20           25           30
Leu Val Ala Trp Gly Lys Leu Ser Gly Lys Val Ala Ser Lys Pro Leu
      35           40           45
Thr Leu Pro Gly Arg Asn Trp Ile Asn Leu Gly Leu Leu Val Val Ile
      50           55           60
Ile Ala Cys Gly Ile Trp Phe Ser Asn Val Ser Gly Gly Ile Ala Trp
      65           70           75           80
Leu Pro Leu Ala Leu Leu Thr Leu Ala Ser Leu Phe Leu Gly Phe His
      85           90           95
Phe Val Ala Ala Ile Gly Gly Ala Asp Met Pro Val Val Ile Ser Met
      100          105          110
Leu Asn Ser Tyr Ser Gly Trp Ala Ala Ala Phe Ser Gly Phe Ser Leu
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His Ile Pro Val Leu Ile Val Thr Gly
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 <213> Homo sapiens

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120
ctgatacctct ccaaggagct ggacacctgt caacaggaaa gggaccagta caaactcatg
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240
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275

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<210> 632  
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 <212> PRT  
 <213> Homo sapiens

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      20           25           30
Lys Glu Ala Leu Leu Ile Leu Ser Lys Glu Leu Asp Thr Cys Gln Gln
      35           40           45
Glu Arg Asp Gln Tyr Lys Leu Met Ala Asn Gln Leu Arg Glu Arg His
      50           55           60
Gln Ser Leu Lys Lys Lys Tyr Arg Glu Leu Ile Asp Gly Asp Pro Ser
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Leu Pro Pro Glu Lys Arg Lys
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<210> 633  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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Thr Leu Gly Phe Ser Val Gly Thr Ala Val Met Ala Met Phe Pro Asn
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&lt;210&gt; 637

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 637

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<210> 638

<211> 99

<212> PRT

<213> Homo sapiens

<400> 638

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Pro	Trp	Cys	Phe	Cys	Arg	Pro	Leu	Leu	Phe	Phe	Gly	Met	Val	Arg	Phe
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<212> PRT

<213> Homo sapiens

&lt;400&gt; 640

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 Tyr Trp Arg Asp Val Gly Thr Ile Asp Ala Tyr His Asp Ala His Met  
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&lt;210&gt; 641

&lt;211&gt; 491

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 641

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&lt;210&gt; 642

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 642

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 Lys Val Phe Ser Lys Ile Phe Ser His Glu Ala Leu Glu Ser Tyr Leu

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Arg Met Ala Ile Arg Val Leu Leu Gly Phe Ser Ile Pro Glu Glu Asp
      100             105             110
Leu Gly His Leu Phe Glu Val Tyr Gln Gln Phe Val Asp Asn Val Phe
      115             120             125
Ser Leu Pro Val Asp Leu Pro Phe Ser Gly Tyr Arg Arg Gly Ile Gln
      130             135             140
Ala Arg Gln Ile Leu Gln Lys Gly Leu Glu Lys Ala Ile Arg Glu Lys
145             150             155             160
Leu Gln Cys

```

```

<210> 643
<211> 628
<212> DNA
<213> Homo sapiens

```

```

<400> 643
nagatctttg acatctacgt ggtcaccgct gactacctgc ccctaggggc tgagcaggat
60
gccatcacgc tgcgggaagg ccagtatgtg gaggtcctgg atgcagccca cccactgcgc
120
tggcttgtcc gcaccaagcc caccaagtcc agccccctac ggcagggctg ggtgtcacca
180
gcctacctgg acaggaggct caagctgtca cctgagtggg gggccgctga ggccccctgag
240
ttccctgggg aggctgtgtc tgaagacgaa tacaaggcaa ggctgagctc tgtgatccag
300
gagctgctga gttctgagca ggccttcgtg gaggagctgc agttcctgca gagccaccac
360
ctgcagcacc tggagcgctg ccccccagtg cccatagctg tggccggcca gaaggcagtc
420
atcttccgca atgtgcggga catcgccgcg tccacagca gcttctgca ggagttgcag
480
cagtgcgaca cggacgacga cgtggccatg tgcttcatca agaaccaggc ggcctttgag
540
cagtacctgg agttcctggt gggacgtgtg caggctgagt cggtggtcgt cagcacggcc
600
atccaggagt tctacaagaa atacgcgt
628

```

```

<210> 644
<211> 209
<212> PRT
<213> Homo sapiens

```

```

<400> 644
Xaa Ile Phe Asp Ile Tyr Val Val Thr Ala Asp Tyr Leu Pro Leu Gly
1           5           10          15
Ala Glu Gln Asp Ala Ile Thr Leu Arg Glu Gly Gln Tyr Val Glu Val

```



```

      20      25      30
Leu Asp Ala Ala His Pro Leu Arg Trp Leu Val Arg Thr Lys Pro Thr
      35      40      45
Lys Ser Ser Pro Ser Arg Gln Gly Trp Val Ser Pro Ala Tyr Leu Asp
      50      55      60
Arg Arg Leu Lys Leu Ser Pro Glu Trp Gly Ala Ala Glu Ala Pro Glu
      65      70      75      80
Phe Pro Gly Glu Ala Val Ser Glu Asp Glu Tyr Lys Ala Arg Leu Ser
      85      90      95
Ser Val Ile Gln Glu Leu Leu Ser Ser Glu Gln Ala Phe Val Glu Glu
      100      105      110
Leu Gln Phe Leu Gln Ser His His Leu Gln His Leu Glu Arg Cys Pro
      115      120      125
His Val Pro Ile Ala Val Ala Gly Gln Lys Ala Val Ile Phe Arg Asn
      130      135      140
Val Arg Asp Ile Gly Arg Phe His Ser Ser Phe Leu Gln Glu Leu Gln
      145      150      155      160
Gln Cys Asp Thr Asp Asp Asp Val Ala Met Cys Phe Ile Lys Asn Gln
      165      170      175
Ala Ala Phe Glu Gln Tyr Leu Glu Phe Leu Val Gly Arg Val Gln Ala
      180      185      190
Glu Ser Val Val Val Ser Thr Ala Ile Gln Glu Phe Tyr Lys Lys Tyr
      195      200      205
Ala

```

<210> 645  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

```

<400> 645
atccataggc attgccagag tattcacttc ctgttgaggg cacacagggg agaggcctgt
60
gaggggaagg gcatcaatgc agggctgggg tgtgggaagg tctgcagggc tggcaatggg
120
caagctcagg aatgggtgggg gagacagttg gagccacggc agggacaatg gagctcagaa
180
ggtcctctg tcatcccttt tggaacccat tgatctggaa aatttggggc agtgtccttt
240
tccgtaggta ctggaggcac tggcttgaca tactacagcc ctcccaggag gcccagaagg
300
tagatgttat aactaccccc attttccaga tgaagaaact gagcctctgg gatctgcgga
360
agctcccaga gctggagcag ttagtcctg ggcctacac tcacagcaca gtttccc
417

```

<210> 646  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

```

<400> 646
Met Val Gly Glu Thr Val Gly Ala Thr Ala Gly Thr Met Glu Leu Arg

```

```

      1             5             10             15
Arg Ser Leu Cys His Pro Phe Trp Asn Pro Leu Ile Trp Lys Ile Trp
      20             25             30
Gly Ser Val Leu Phe Arg Arg Tyr Trp Arg His Trp Leu Asp Ile Leu
      35             40             45
Gln Pro Ser Gln Glu Ala Gln Lys Val Asp Val Ile Thr Thr Pro Ile
      50             55             60
Phe Gln Met Lys Lys Leu Ser Leu Trp Asp Leu Arg Lys Leu Pro Glu
65             70             75             80
Leu Glu Gln Leu Val Pro Gly Pro Tyr Thr His Ser Thr Val Ser
      85             90             95

```

<210> 647  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

```

<400> 647
acgcgtttcg gttcttgagc gcttccacca attcagcggg ggtgagcggc cctgtgcat
60
cgcgagcagc ggtgatcaga taggcgatat cgcctcgtt cagttgcacg gtgtcgttat
120
cggtagccat gcgtggcgaa ctctttggc atgggaaaat cgggtgaggc caacgggcac
180
agcaacagga cgtgtccctt gcggcacgtg gcaacacgtc agtatagcgc gtttccgccg
240
ggatttccgt tgaatgaagg caagaagtcg ggcacgcac cactgctac cgctcggtagg
300
tacgatagcc gcggcgccac caggttggtt acattccaaa cgcaacgcag gaaccgcac
360
gaacagcgtt ttctgcaaca aaccccttat gacgctggct ctcgggcatt tcagtgtcga
420
c
421

```

<210> 648  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 648
Met Gly Lys Ser Gly Glu Ala Asn Gly His Ser Asn Arg Thr Cys Pro
      1             5             10             15
Leu Arg His Val Ala Thr Arg Gln Tyr Ser Ala Phe Pro Pro Gly Phe
      20             25             30
Pro Leu Asn Glu Gly Lys Lys Ser Gly Thr His Pro Pro Ala Thr Ala
      35             40             45
Arg Trp Tyr Asp Ser Arg Gly Ala Thr Arg Leu Ala Thr Phe Gln Thr
      50             55             60
Gln Arg Arg Asn Pro His Glu Gln Arg Phe Ser Gln Gln Thr Pro Tyr
65             70             75             80
Asp Ala Gly Ser Arg Ala Phe Gln Cys Arg
      85             90

```

<210> 649  
 <211> 563  
 <212> DNA  
 <213> Homo sapiens

<400> 649  
 cgcaacatgc ataaacacat gtgtctctcc gagactcagc tacttccttt gccctctctg  
 60  
 gacctcagtg tccaggettg tgcatttagg ggctcaggtt tgggctctgt gcctatgagc  
 120  
 cagtctatgt gtgcactgtc tgtctgtctg tccgtctgcc agcaaccttc aaggccccag  
 180  
 gaggggaagg caccaatgga aggtgggggc agggaaggag gtagcgttga caagttccaa  
 240  
 tgtctggctt tccctcctgg aaaccccgag ctggggctgg ccccccttc ccttctctgc  
 300  
 tctctcgtc aagcacgtcc cttctaagag cccctctctg cagacgcccc cagtggaacc  
 360  
 aagcctagat tcgctgccaa gaaggccgac attttttaga cttgccacgt taaagggggc  
 420  
 tgcacaggca cgcactcaaa tccccccctc catgtcctcc gcctgtgcac attcaggcaa  
 480  
 cccgaaacac acaaagacac gggtggacac agcggccacc tgtgcacaca ggaggtagca  
 540  
 catggagcgc atctgacccc ggg  
 563

<210> 650  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 650  
 Met His Lys His Met Cys Ser Ser Glu Thr Gln Leu Leu Pro Leu Pro  
 1 5 10 15  
 Ser Leu Asp Leu Ser Val Gln Ala Cys Ala Phe Arg Gly Ser Gly Leu  
 20 25 30  
 Gly Ser Val Pro Met Ser Gln Ser Met Cys Ala Leu Ser Val Cys Leu  
 35 40 45  
 Ser Val Cys Gln Gln Pro Ser Arg Pro Gln Glu Gly Lys Ala Pro Met  
 50 55 60  
 Glu Gly Gly Gly Arg Glu Gly Gly Ser Val Asp Lys Phe Gln Cys Leu  
 65 70 75 80  
 Ala Phe Pro Pro Gly Asn Pro Glu Leu Gly Leu Ala Pro Pro Ser Leu  
 85 90 95  
 Pro Val Ser Leu Ala Gln Ala Arg Pro Phe  
 100 105

<210> 651  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 651

gaattcttca acaagctctc ctgctctagg atcaaggata gacctatata aggtccaaac  
 60  
 cataatggag tccatgggggt caaagttatc tcctggagct cagcagttga tggatatggg  
 120  
 taggtgtcag cagcggaatt gtattcccat tggagagcag cttcagtcgg tgttgggcaa  
 180  
 ttctggatac aagcatatga ttggactaca atcctcatct accttaggaa ccttaaacia  
 240  
 gtcgtctccc acaccttttc cttttagaac tggattgaca tctgggaacg tgactgaaaa  
 300  
 cttacaagcg tacattgata aaagtacaca actgcctggg ggagagaatt c  
 351

<210> 652

<211> 95

<212> PRT

<213> Homo sapiens

<400> 652

Met	Glu	Ser	Met	Gly	Ser	Lys	Leu	Ser	Pro	Gly	Ala	Gln	Gln	Leu	Met
1				5					10					15	
Asp	Met	Val	Arg	Cys	Gln	Gln	Arg	Asn	Cys	Ile	Pro	Ile	Gly	Glu	Gln
			20					25					30		
Leu	Gln	Ser	Val	Leu	Gly	Asn	Ser	Gly	Tyr	Lys	His	Met	Ile	Gly	Leu
			35				40					45			
Gln	Ser	Ser	Ser	Thr	Leu	Gly	Thr	Leu	Asn	Lys	Ser	Ser	Ser	Thr	Pro
	50					55				60					
Phe	Pro	Phe	Arg	Thr	Gly	Leu	Thr	Ser	Gly	Asn	Val	Thr	Glu	Asn	Leu
65					70				75					80	
Gln	Ala	Tyr	Ile	Asp	Lys	Ser	Thr	Gln	Leu	Pro	Gly	Gly	Glu	Asn	
				85					90					95	

<210> 653

<211> 399

<212> DNA

<213> Homo sapiens

<400> 653

nncccggtg gggctgggggt ggggccagca tcagaggagg acatgaccaa gctgtgcaac  
 60  
 caccggcgga aagctgttgc tatggcaact ctgtaccgca gcatggagac cacctgctca  
 120  
 cactcttctc ctggagaggg agcgagcccc caaatgttcc aactgtgtc cccaggggccc  
 180  
 ccctctgccc gccctccctg tcgagttcct cctacaactc cacttaatgg gggtcctggc  
 240  
 tcccttcccc cagaaccacc ctcagtttcc caggccttcc ccactctagc aggccttggg  
 300  
 gggcttttcc cccaaggct tgctgaccca gtcccttctg ggggcagtag cagccccgt  
 360  
 ttcctcccaa ggggcaatgc cccctctcca gccccact  
 399

<210> 654

<211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Xaa Pro Gly Gly Ala Gly Val Gly Pro Ala Ser Glu Glu Asp Met Thr  
 1 5 10 15  
 Lys Leu Cys Asn His Arg Arg Lys Ala Val Ala Met Ala Thr Leu Tyr  
 20 25 30  
 Arg Ser Met Glu Thr Thr Cys Ser His Ser Ser Pro Gly Glu Gly Ala  
 35 40 45  
 Ser Pro Gln Met Phe His Thr Val Ser Pro Gly Pro Pro Ser Ala Arg  
 50 55 60  
 Pro Pro Cys Arg Val Pro Pro Thr Thr Pro Leu Asn Gly Gly Pro Gly  
 65 70 75 80  
 Ser Leu Pro Pro Glu Pro Pro Ser Val Ser Gln Ala Phe Pro Thr Leu  
 85 90 95  
 Ala Gly Pro Gly Gly Leu Phe Pro Pro Arg Leu Ala Asp Pro Val Pro  
 100 105 110  
 Ser Gly Gly Ser Ser Ser Pro Arg Phe Leu Pro Arg Gly Asn Ala Pro  
 115 120 125  
 Ser Pro Ala Pro Pro  
 130

<210> 655  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 655  
 tgaaggaaat tctctatggc ttgtgttcat catgtagaac agcccatgag gagaatagga  
 60  
 gatgaggtgg gaagtgcact gggatctggg ggaagaagcc cgggggttcaa gactcagcta  
 120  
 ctgactgcat ggtgtcaaag gattcgggca tcctctctga ggctgagtct tcagatgaca  
 180  
 gtgagaacag ggacacctgc cctgcccttc tcacggggcg tgtgggcacc catgagcatg  
 240  
 cttgacaaat gcaaggtgcc atacaaacag gaactgcaca atctcaccgc cgggcctact  
 300  
 cagcattggt atttttacct ttacatctat atgaagatgt agttccattc cttttaactg  
 360  
 ttgttttc  
 368

<210> 656  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 656  
 Met Ala Cys Val His His Val Glu Gln Pro Met Arg Arg Ile Gly Asp  
 1 5 10 15  
 Glu Val Gly Ser Ala Leu Gly Ser Gly Gly Arg Ser Pro Gly Phe Lys

```

      20      25      30
Thr Gln Leu Leu Thr Ala Trp Cys Gln Arg Ile Arg Ala Ser Ser Leu
      35      40      45
Arg Leu Ser Leu Gln Met Thr Val Arg Thr Gly Thr Pro Ala Leu Pro
      50      55      60
Phe Ser Arg Gly Val Trp Ala Pro Met Ser Met Leu Asp Lys Cys Lys
      65      70      75      80
Val Pro Tyr Lys Gln Glu Leu His Asn Leu Thr Ala Arg Pro Thr Gln
      85      90      95
His Cys Tyr Phe Tyr Leu Tyr Ile Tyr Met Lys Met
      100      105

```

&lt;210&gt; 657

&lt;211&gt; 330

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 657

```

gtcgaccacg gcatgaaaaa gccgggggatg atcctcatca acaacccctg gggcgagtcc
60
aacgaggcgg gcttcaagcg cgccctcgaa gagcgtggca tggccaacgc cgggtgtcgag
120
cgtattcagg acagcgacct ggacgtggtg ccgcaattga ccccgctga aaaacgccgg
180
tgccgacacc ttgtgatgg tcggcaacgt cgcccttcg gcacaggtgg tcaagtcctt
240
ggaccgcatg ggttgggacg tgctgtggt gtctcactgg gggccggccg gnggtcgctt
300
tggcgagctg gcggggccta acgcttctcg
330

```

&lt;210&gt; 658

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 658

```

Met Lys Lys Pro Gly Met Ile Leu Ile Asn Asn Pro Trp Gly Glu Ser
  1      5      10      15
Asn Glu Ala Gly Phe Lys Arg Ala Leu Glu Glu Arg Gly Met Ala Asn
      20      25      30
Ala Gly Val Glu Arg Ile Gln Asp Ser Asp Leu Asp Val Val Pro Gln
      35      40      45
Leu Thr Pro Pro Glu Lys Arg Arg Cys Arg His Leu Ala Asp Gly Arg
      50      55      60
Gln Arg Arg Pro Phe Gly Thr Gly Gly Gln Val Pro Gly Pro His Gly
      65      70      75      80
Leu Gly Arg Ala Cys Gly Val Ser Leu Gly Ala Gly Arg Xaa Ser Leu
      85      90      95
Trp Arg Ala Gly Gly Ala
      100

```

&lt;210&gt; 659

&lt;211&gt; 1505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 659

gccaggatca tgtccaccac cacatgccaa gtggtggcgt tectctgtc catcctgggg  
60  
ctggccggct gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac  
120  
aaccctgtca cctccgtggt ccagtacgaa gggctctgga ggagctgcgt gaggcagagt  
180  
tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag  
240  
gcagtgcgag ccctgatgat cgtaggcatc gtcctgggtg ccattggcct cctggtatcc  
300  
atctttgccc tgaatgcat ccgcattggc agcatggagg actctgccaa agccaacatg  
360  
acactgacct cggggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct  
420  
gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaacat gtacaccggc  
480  
atgggtggga tgggtgcagac tgttcagacc aggtacacat ttgggtgcggc tctgttcgtg  
540  
ggctgggtcg ctggaggcct cactactaatt gggggtgtga tgatgtgcat cgctgcccg  
600  
ggcctggcac cagaagaaac caactacaaa gccgtttctt atcatgcctc aggccacagt  
660  
gttgccatac agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac  
720  
aagaagatat acgatggagg tgcccgacac gaggacgagg tacaatctta tccttccaag  
780  
cacgactatg tgtaatgtc taagacctct cagcacgggc ggaagaaact cccggagagc  
840  
tcacccaaaa aacaaggaga tcccatctag atttcttctt gcttttgact cacagctgga  
900  
agttagaaaa gccctgattt catcttttga gaggccaagt ggtcttagcc tcagtctctg  
960  
tctctaaata ttccaccata aaacagctga gttatttatg aattagaagc tatagctcac  
1020  
attttcaatc ctctatttct ttttttaaataa acttcttctt actctgatga gagaatgtgg  
1080  
ttttaatctc tctctcacat tttgatgatt tagacagact cccctcttc ctcttagtca  
1140  
ataaacccat tgatgatcta tttcccagct tatccccaag aaaacttttg aaaggaaaga  
1200  
gtagacccaa agatgttatt ttctgctggt tgaattttgt ctccccaccc ccaacttggc  
1260  
tagtaataaa cacttactga agaagaagca ataagagaaa gatatttgta atctctccag  
1320  
cccatgatct cggttttctt aactgtgat cttaaaagtt accaaaccaa agtcattttc  
1380  
agtttgaggc aaccaaacct ttctactgct gttgacatct tcttattaca gcaacaccat  
1440  
tctaggagtt tctgagctc tccactggag tcttccccct ctgtcgtctt ctgcagcgg  
1500

tacccc  
1505

<210> 660  
<211> 261  
<212> PRT  
<213> Homo sapiens

<400> 660  
Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile Leu  
1 5 10 15  
Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp Ser Thr  
20 25 30  
Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln Tyr Glu Gly  
35 40 45  
Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg  
50 55 60  
Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg  
65 70 75 80  
Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val  
85 90 95  
Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser  
100 105 110  
Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser  
115 120 125  
Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val  
130 135 140  
Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly  
145 150 155 160  
Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe  
165 170 175  
Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met  
180 185 190  
Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala  
195 200 205  
Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly  
210 215 220  
Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile  
225 230 235 240  
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro Ser  
245 250 255  
Lys His Asp Tyr Val  
260

<210> 661  
<211> 451  
<212> DNA  
<213> Homo sapiens

<400> 661  
nnacgcgtgt agtttgtgta tcggcgcgga actcgccgcg tctgatctcg aggagcttcc  
60  
cccatggacg agattttaac cttgcttgcc ggaggcggtg acgacgagcc agagtggcat  
120



gacaaggcat tatgtgcca gactgatccg gaggcattct tccctgaaa gggaggatcc  
 180  
 acccgtgagg ccaagcgcat ctgtgagtc tgtgaggtcc gccaggagt cttggagtac  
 240  
 gcccttgcca atgacgagag gtccggaatc tggggcggat tgtccgagat ggagaggcgt  
 300  
 cgggtgcgca agcggggcgt acctgacgtc ggagcgggt tattgacacg gcccggtaaa  
 360  
 atgccctgtc tgcccgggat ggctgtctgc acgatgcggc atatgcgat atcgacagc  
 420  
 tgggtgcat cccgtgctcc atgacgtcga c  
 451

<210> 662  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 662  
 Met Asp Glu Ile Leu Thr Leu Leu Ala Gly Gly Gly Asp Asp Glu Pro  
 1 5 10 15  
 Glu Trp His Asp Lys Ala Leu Cys Ala Gln Thr Asp Pro Glu Ala Phe  
 20 25 30  
 Phe Pro Glu Lys Gly Gly Ser Thr Arg Glu Ala Lys Arg Ile Cys Glu  
 35 40 45  
 Ser Cys Glu Val Arg Gln Glu Cys Leu Glu Tyr Ala Leu Ala Asn Asp  
 50 55 60  
 Glu Arg Phe Gly Ile Trp Gly Gly Leu Ser Glu Met Glu Arg Arg Arg  
 65 70 75 80  
 Leu Arg Lys Arg Ala  
 85

<210> 663  
 <211> 552  
 <212> DNA  
 <213> Homo sapiens

<400> 663  
 ctcgagcgtc tcgacgccga cgcgcgccag ggagccaagg aagacctctc gcagcgcgac  
 60  
 ccctacgacg tgcctgctgt agggggcgggt cccgcgggtg ccgcggccgc cgtgtacgag  
 120  
 gctcgtaagg gcatcgcac cgccatggtc gggctctcga tcggcggcca ggtactcgat  
 180  
 accgaggcca tcgacaacct catctcgggt cgcacacca ccggtccgag tctggccgac  
 240  
 gccctccgca gccacgtcaa cgactacaac attgacgtta ttgagcgtca gaccgccagc  
 300  
 gccatagaga ccaccggcgg tatgaccacc gtgcatctga ccgacggcga cctgcgggag  
 360  
 cgctcagtc tctggccac cgggtcccgc tggcgcaacc ttggcgtaac tggcgaggag  
 420  
 gaataccgca ccaagggtgt gacctactgc ccgcactgag atggcccgt attcacaggc  
 480

aaaaagggtgg ccgctcgtcgg aggtggaaac tccggtattg aggcgcgtat cgacctcgcc  
540

ggcgtcgtcg ac

552

<210> 664

<211> 184

<212> PRT

<213> Homo sapiens

<400> 664

Leu	Glu	Arg	Leu	Asp	Ala	Asp	Ala	Ala	Gln	Gly	Ala	Lys	Glu	Asp	Leu
1				5					10					15	
Ser	Gln	Arg	Asp	Pro	Tyr	Asp	Val	Leu	Val	Val	Gly	Ala	Gly	Pro	Ala
			20					25					30		
Gly	Ala	Ala	Ala	Ala	Val	Tyr	Ala	Ala	Arg	Lys	Gly	Ile	Arg	Thr	Ala
		35					40					45			
Met	Val	Gly	Ser	Arg	Ile	Gly	Gly	Gln	Val	Leu	Asp	Thr	Glu	Ala	Ile
		50				55					60				
Asp	Asn	Leu	Ile	Ser	Val	Pro	His	Thr	Thr	Gly	Pro	Arg	Leu	Ala	Asp
65					70					75				80	
Ala	Leu	Arg	Ser	His	Val	Asn	Asp	Tyr	Asn	Ile	Asp	Val	Ile	Glu	Arg
				85					90					95	
Gln	Thr	Ala	Ser	Ala	Ile	Glu	Thr	Thr	Gly	Gly	Met	Thr	Thr	Val	His
			100						105					110	
Leu	Thr	Asp	Gly	Asp	Leu	Arg	Ala	Arg	Ser	Val	Ile	Val	Ala	Thr	Gly
		115				120						125			
Ala	Arg	Trp	Arg	Asn	Leu	Gly	Val	Pro	Gly	Glu	Glu	Glu	Tyr	Arg	Thr
		130				135					140				
Lys	Gly	Val	Thr	Tyr	Cys	Pro	His	Cys	Asp	Gly	Pro	Leu	Phe	Thr	Gly
145					150					155				160	
Lys	Lys	Val	Ala	Val	Val	Gly	Gly	Gly	Asn	Ser	Gly	Ile	Glu	Ala	Ala
				165					170					175	
Ile	Asp	Leu	Ala	Gly	Val	Val	Asp								
							180								

<210> 665

<211> 352

<212> DNA

<213> Homo sapiens

<400> 665

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120

cgctcacgcg gtggccccgg ccagcggcct ttcaggatc tcgaaacgca ggtcgtcgcg  
180

cttggggatg ccgaatcgtt cgtegccata cgggaacggc ttcttgatgc cggcgcgag  
240

gtagccgagg cgctcgtaga agcgatcaga tcgcgcgcac gtcgatcact gtcattctga  
300

ttaccggcac gtccattcg cgcgcggcgt gggcttcggc ggcgtccatc aa  
352

<210> 666  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Met Glu Arg Ala Gly Asn Ala Asp Asp Ser Asp Arg Arg Ala Arg Asp  
 1 5 10 15  
 Leu Ile Ala Ser Thr Ser Ala Ala Ala Thr Cys Ala Pro Ala Ser Arg  
 20 25 30  
 Ser Arg Ser Arg Met Ala Thr Asn Asp Ser Ala Ser Pro Ser Ala Thr  
 35 40 45  
 Thr Cys Val Ser Arg Ser Trp Lys Ser Arg Trp Pro Gly Pro Pro Arg  
 50 55 60  
 Glu Arg Gly Leu Asp Leu Cys Leu Arg Arg Arg Thr Ala Ala Gly  
 65 70 75 80  
 Arg Asn Glu Glu Arg Val Arg Arg Ser Asp Arg Tyr Thr Asp Arg Gly  
 85 90 95  
 Val Gln Pro Arg Arg Arg Thr Val Arg  
 100 105

<210> 667  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 667  
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 180  
 gacgacgagg gcaagatccg tatcaaccgt ggcttcgcg ttgaatatc gtcggtactg  
 240  
 gggccgtata aggttggtt gcgattccac cctcgggtgt acttaggaac gattaagttc  
 300  
 cttgggtttg agcagatctt caaaaatgct ctgactggca tgccgatcgg tggcgcgaa  
 360  
 ggtgggtcgg actttgatcc ccatgacgcg t  
 391

<210> 668  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 668  
 Xaa Ala Tyr Glu Ser Val Leu Arg Arg Asn Pro Gly Glu Ala Glu Phe  
 1 5 10 15  
 His Gln Ala Val Arg Glu Ile Phe Glu Ser Leu Gly Pro Val Leu Asp  
 20 25 30  
 Lys Asn Pro Gln Tyr Val Glu Ala Ala Val Leu Ser Arg Ile Cys Glu

```

      35              40              45
Pro Glu Arg Gln Ile Ile Phe Arg Val Pro Trp Val Asp Asp Glu Gly
      50              55              60
Lys Ile Arg Ile Asn Arg Gly Phe Arg Val Glu Tyr Ser Ser Val Leu
65              70              75              80
Gly Pro Tyr Lys Gly Gly Leu Arg Phe His Pro Ser Val Tyr Leu Gly
      85              90              95
Thr Ile Lys Phe Leu Gly Phe Glu Gln Ile Phe Lys Asn Ala Leu Thr
      100             105             110
Gly Met Pro Ile Gly Gly Ala Lys Gly Gly Ser Asp Phe Asp Pro His
      115             120             125
Asp Ala
      130

```

<210> 669  
 <211> 707  
 <212> DNA  
 <213> Homo sapiens

```

<400> 669
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attgagaaca cccttgctgc ctccggccac gcggtcgagg tgggatgcac ctaccttgaa
120
actgacgttc acgcgaccag cgacgggggtg ctagtggcct tccacgatcc gatactcgat
180
cgcgctcactg aatcaggcgg agtcatcgcc gccatgccgt ggcacaagggt caaacaagcc
240
aagggttggtg gcgaaccgat cccacacctta gatgagattt tcgacgcctt tcccgacgcg
300
ttcatcaata tcgacatcaa gcatgatggc gccaccatgc cgctcatcga cgttctttcc
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cgtcaccggg cttggagtcg gggttgctgc gggtcgttca gcagtaaacg catccagacc
420
ttccgtcgcc tggttcaggg acgcactgcy actgcagtgg ggtcgggtggg agtcnnggct
480
gggctgtcat cagccctcat agcatgcaga tggcacagtc ccatgggaat gcgtaccagg
540
tgccgcaccg cttgaccggg tnatggggtg ccccttgta caccgacctt cattaaagct
600
gcccacgtc aggggcgagc tgttcacgtc tggacgggta atgagatctc tgaggctcga
660
gaactgatgg atatgggggt cgacggcatc gtcacagatc gtccgga
707

```

<210> 670  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

```

<400> 670
Met Ala Val Asn Lys Gly Ile Glu Asn Thr Leu Ala Ala Phe Gly His
1          5          10          15
Ala Val Glu Val Gly Cys Thr Tyr Leu Glu Thr Asp Val His Ala Thr

```

```

      20      25      30
Ser Asp Gly Val Leu Val Ala Phe His Asp Pro Ile Leu Asp Arg Val
      35      40      45
Thr Glu Ser Gly Gly Val Ile Ala Ala Met Pro Trp His Lys Val Lys
      50      55      60
Gln Ala Lys Val Gly Gly Glu Pro Ile Pro Thr Leu Asp Glu Ile Phe
      65      70      75      80
Asp Ala Phe Pro Asp Ala Phe Ile Asn Ile Asp Ile Lys His Asp Gly
      85      90      95
Ala Thr Met Pro Leu Ile Asp Val Leu Ser Arg His Arg Ala Trp Ser
      100      105      110
Arg Val Cys Val Gly Ser Phe Ser Ser Lys Arg Ile Gln Thr Phe Arg
      115      120      125
Arg Leu Val Gln Gly Arg Thr Ala Thr Ala Val Gly Ser Val Gly Val
      130      135      140
Xaa Ala Gly Leu Ser Ser Ala Leu Ile Ala Cys Arg Trp His Ser Pro
      145      150      155      160
Met Gly Met Arg Thr Arg Cys Arg Thr Ala
      165      170

```

<210> 671  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

```

<400> 671
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cagctcagag catggggcgg ccttggetca ctacgcctgc agctgtgaat tcgttctccg
120
gtgctggaga gggatctggt tatctccatt ctctgtctc cacgtggaaa ggaaggacgt
180
gcgctctcat cctacgtggt ttgagaaatc gcattgtccc cagctctgcg ggaggatctg
240
gggacgcagt ggggaaccag acaggcagtt ggaggtctag tgcgcgccag aagccagttc
300
ccacccaggg tgccatttgc tgggcgccct agggagctgc gtgggcatcc agaggagtga
360
gtcgccccct gctctgetca gtgccactt ccccgggcag ggcaggcggt attaacgtag
420
agggagaaca cccatgcaca caac
444

```

<210> 672  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

```

<400> 672
Met Gly Ser Glu Gly Asp Gly Thr Cys Arg Lys Gly Pro Ala Ala Gln
  1           5           10           15
Ser Met Gly Arg Pro Trp Leu Thr Thr Pro Ala Ala Val Asn Ser Phe
      20      25      30
Ser Gly Ala Gly Glu Gly Ser Gly Tyr Leu His Ser Leu Val Ser Thr

```

```

      35              40              45
Trp Lys Gly Arg Thr Cys Ala Leu Ile Leu Arg Val Leu Arg Asn Arg
  50              55              60
Ile Val Pro Ser Ser Ala Gly Gly Ser Gly Asp Ala Val Gly Asn Gln
  65              70              75              80
Thr Gly Ser Trp Arg Ser Ser Ala Arg Gln Lys Pro Val Pro Thr Gln
      85              90              95
Gly Ala Ile Cys Trp Ala Pro
      100

```

<210> 673  
 <211> 452  
 <212> DNA  
 <213> Homo sapiens

```

<400> 673
acgcgtccct gcagaaatcc tctcgcccta ggtcatccgc aagatgtggc agggcatgca
60
ccgtgaaagc cttcaagtct gccgcagcaa gaccgcacgc ctgctgaaat tcgcagttgt
120
gccgcgggtcc ctgatgcgga caaactcggc caccacgacg agcctgacgc ttgcggacca
180
acgttcaaact actgtgcact tgaaacgtcc ggccgcgcatc acctgggtga ctttgtgcga
240
ccgacattac ttatgttcac gctctttcag ttcttgtcaa taccgtattt ttcgtcgacg
300
tctccatcag aaaaatgtcg gtgttaccgc accgcagacg atgcgtaccc ttgcgctgac
360
gatggaggcc ttgaaaagtg cattagccac tactggggcga atctacggca aaaagctggt
420
actaggcggg gattggggag gcccgtagtg gc
452

```

<210> 674  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

```

<400> 674
Met Trp Gln Gly Met His Arg Glu Ser Leu Gln Val Cys Arg Ser Lys
  1              5              10              15
Thr Ala Arg Leu Leu Lys Phe Ala Val Val Pro Arg Ser Leu Met Arg
  20              25              30
Thr Asn Ser Ala Thr Thr Ile Ser Leu Thr Leu Ala Asp Gln Arg Ser
  35              40              45
Asn Thr Val His Leu Lys Arg Pro Gly Arg Ile Thr Trp Val Thr Leu
  50              55              60
Cys Asp Arg His Tyr Leu Cys Ser Arg Ser Phe Ser Ser Cys Gln Tyr
  65              70              75              80
Arg Ile Phe Arg Arg Arg Leu His Gln Lys Asn Val Gly Val Thr Ala
      85              90              95
Pro Gln Thr Met Arg Thr Leu Ala Leu Thr Met Glu Ala Leu Lys Ser
      100              105              110
Ala Leu Ala Thr Thr Gly Arg Ile Tyr Gly Lys Lys Leu Leu Leu Gly

```

115  
Gly Asp Trp Gly Gly Pro  
130

120

125

<210> 675  
<211> 8564  
<212> DNA  
<213> Homo sapiens

<400> 675  
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ccccacagcc ttctctaccc agtgcagatc gcccgagcgc acacggacgt cgggctcctg  
120  
gagtaccagc accactcccg cgactatgcc tcccacctgt cgccgggctc catcatccag  
180  
ccccagcggc ggaggccctc cctgctgtct gagttccagc ccgggaatga acggtcccag  
240  
gagctccacc tgcggccaga gtccactca tacctgcccg agctggggaa gtcagagatg  
300  
gagttcattg aaagcaagcg ccctcggtca gagctgctgc ctgacccctt gctgcgaccg  
360  
tcacccttgc tggccacggg ccagcctcgc ggatctgaag acctcaccaa ggaccgtagc  
420  
ctgacgggca agctggaacc ggtgtctccc ccagccccc cgcacactga ccctgagctg  
480  
gagctgggtgc cgccacggct gtccaaggag gagctgatcc agaacatgga ccgctgggac  
540  
cgagagatca ccattgtaga gcagcagatc tctaagctga agaagaagca gcaacagctg  
600  
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tcgaagcacc gcagcctggt gcagatcatc tacgacgaga accggaagaa ggctgaagct  
720  
gcacatcgga ttctggaagg cctggggccc cagggtggagc tgccgctgta caaccagccc  
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900  
cgctatgacc agctcatgga ggcctgggaa aaaaagggtg agcgcatcga gaacaacccc  
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cggcggcggg ccaaggagag caaggcgccg gactactacg aaaagcagtt ccctgagatc  
1020  
cgcaagcagc gcgagctgca ggagcgcatg cagggcaggg tgggccagcg gggcagtggg  
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1140  
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1260  
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1920  
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1980  
cagaacctcg atgagatctt gcagcagcac aagctgaaga tggagaagga gaggaacgag  
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2100  
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6180

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6720  
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6840  
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6900  
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6960  
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7020  
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7080  
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7140  
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7320  
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7800

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<210> 676

<211> 2518

<212> PRT

<213> Homo sapiens

<400> 676

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			20					25					30		
Thr	His	Thr	Asp	Val	Gly	Leu	Leu	Glu	Tyr	Gln	His	His	Ser	Arg	Asp
		35				40						45			
Tyr	Ala	Ser	His	Leu	Ser	Pro	Gly	Ser	Ile	Ile	Gln	Pro	Gln	Arg	Arg
	50					55				60					
Arg	Pro	Ser	Leu	Leu	Ser	Glu	Phe	Gln	Pro	Gly	Asn	Glu	Arg	Ser	Gln
65				70					75					80	
Glu	Leu	His	Leu	Arg	Pro	Glu	Ser	His	Ser	Tyr	Leu	Pro	Glu	Leu	Gly
			85					90					95		
Lys	Ser	Glu	Met	Glu	Phe	Ile	Glu	Ser	Lys	Arg	Pro	Arg	Leu	Glu	Leu
			100				105						110		
Leu	Pro	Asp	Pro	Leu	Leu	Arg	Pro	Ser	Pro	Leu	Leu	Ala	Thr	Gly	Gln
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Pro	Ala	Gly	Ser	Glu	Asp	Leu	Thr	Lys	Asp	Arg	Ser	Leu	Thr	Gly	Lys
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Leu	Glu	Pro	Val	Ser	Pro	Pro	Ser	Pro	Pro	His	Thr	Asp	Pro	Glu	Leu
145				150				155					160		
Glu	Leu	Val	Pro	Pro	Arg	Leu	Ser	Lys	Glu	Glu	Leu	Ile	Gln	Asn	Met

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Leu	Lys	Lys	Lys	Gln	Gln	Gln	Leu	Glu	Glu	Ala	Ala	Lys	Pro	Pro						
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Glu	Pro	Glu	Lys	Pro	Val	Ser	Pro	Pro	Pro	Ile	Glu	Ser	Lys	His	Arg					
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Ser	Leu	Val	Gln	Ile	Ile	Tyr	Asp	Glu	Asn	Arg	Lys	Lys	Ala	Glu	Ala					
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Ala	His	Arg	Ile	Leu	Glu	Gly	Leu	Gly	Pro	Gln	Val	Glu	Leu	Pro	Leu					
										245			250				255			
Tyr	Asn	Gln	Pro	Ser	Asp	Thr	Arg	Gln	Tyr	His	Glu	Asn	Ile	Lys	Ile					
										260			265				270			
Asn	Gln	Ala	Met	Arg	Lys	Lys	Leu	Ile	Leu	Tyr	Phe	Lys	Arg	Arg	Asn					
										275			280				285			
His	Ala	Arg	Lys	Gln	Trp	Glu	Gln	Lys	Phe	Cys	Gln	Arg	Tyr	Asp	Gln					
										290			295				300			
Leu	Met	Glu	Ala	Trp	Glu	Lys	Lys	Val	Glu	Arg	Ile	Glu	Asn	Asn	Pro					
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Arg	Arg	Arg	Ala	Lys	Glu	Ser	Lys	Val	Arg	Glu	Tyr	Tyr	Glu	Lys	Gln					
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Phe	Pro	Glu	Ile	Arg	Lys	Gln	Arg	Glu	Leu	Gln	Glu	Arg	Met	Gln	Gly					
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Arg	Val	Gly	Gln	Arg	Gly	Ser	Gly	Leu	Ser	Met	Ser	Ala	Ala	Arg	Ser					
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Glu	His	Glu	Val	Ser	Glu	Ile	Ile	Asp	Gly	Leu	Ser	Glu	Gln	Glu	Asn					
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Leu	Glu	Lys	Gln	Met	Arg	Gln	Leu	Ala	Val	Ile	Pro	Pro	Met	Leu	Tyr					
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Asp	Ala	Asp	Gln	Gln	Arg	Ile	Lys	Phe	Ile	Asn	Met	Asn	Gly	Leu	Met					
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Ala	Asp	Pro	Met	Lys	Val	Tyr	Lys	Asp	Arg	Gln	Val	Met	Asn	Met	Trp					
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Ser	Glu	Gln	Glu	Lys	Glu	Thr	Phe	Arg	Glu	Lys	Phe	Met	Gln	His	Pro					
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Lys	Asn	Phe	Gly	Leu	Ile	Ala	Ser	Phe	Leu	Glu	Arg	Lys	Thr	Val	Ala					
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Glu	Cys	Val	Leu	Tyr	Tyr	Tyr	Leu	Thr	Lys	Lys	Asn	Glu	Asn	Tyr	Lys					
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Ser	Leu	Val	Arg	Arg	Ser	Tyr	Arg	Arg	Arg	Gly	Lys	Ser	Gln	Gln	Gln					
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Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro					
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Met	Pro	Arg	Ser	Ser	Gln	Glu	Glu	Lys	Asp	Glu	Lys	Glu	Lys	Glu	Lys					
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Glu	Ala	Glu	Lys	Glu	Glu	Glu	Lys	Pro	Glu	Val	Glu	Asn	Asp	Lys	Glu					
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Asp	Leu	Leu	Lys	Glu	Lys	Thr	Asp	Asp	Thr	Ser	Gly	Glu	Asp	Asn	Asp					
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Glu	Lys	Glu	Ala	Val	Ala	Ser	Lys	Gly	Arg	Lys	Thr	Ala	Asn	Ser	Gln					
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Gly	Arg	Arg	Lys	Gly	Arg	Ile	Thr	Arg	Ser	Met	Ala	Asn	Glu	Ala	Asn					
										580			585				590			
Ser	Glu	Glu	Ala	Ile	Thr	Pro	Gln	Gln	Ser	Ala	Glu	Leu	Ala	Ser	Met					

595                      600                      605  
 Glu Leu Asn Glu Ser Ser Arg Trp Thr Glu Glu Glu Met Glu Thr Ala  
 610                      615                      620  
 Lys Lys Gly Leu Leu Glu His Gly Arg Asn Trp Ser Ala Ile Ala Arg  
 625                      630                      635                      640  
 Met Val Gly Ser Lys Thr Val Ser Gln Cys Lys Asn Phe Tyr Phe Asn  
 645                      650                      655  
 Tyr Lys Lys Arg Gln Asn Leu Asp Glu Ile Leu Gln Gln His Lys Leu  
 660                      665                      670  
 Lys Met Glu Lys Glu Arg Asn Ala Arg Arg Lys Lys Lys Lys Ala Pro  
 675                      680                      685  
 Ala Ala Ala Ser Glu Glu Ala Ala Phe Pro Pro Val Val Glu Asp Glu  
 690                      695                      700  
 Glu Met Glu Ala Ser Gly Val Ser Gly Asn Glu Glu Glu Met Val Glu  
 705                      710                      715                      720  
 Glu Ala Glu Ala Leu His Ala Ser Gly Asn Glu Val Pro Arg Gly Glu  
 725                      730                      735  
 Cys Ser Gly Pro Ala Thr Val Asn Asn Ser Ser Asp Thr Glu Ser Ile  
 740                      745                      750  
 Pro Ser Pro His Thr Glu Ala Ala Lys Asp Thr Gly Gln Asn Gly Pro  
 755                      760                      765  
 Lys Pro Pro Ala Thr Leu Gly Ala Asp Gly Pro Pro Gly Pro Pro  
 770                      775                      780  
 Thr Pro Pro Arg Arg Thr Ser Arg Ala Pro Ile Glu Pro Thr Pro Ala  
 785                      790                      795                      800  
 Ser Glu Ala Thr Gly Ala Pro Thr Pro Pro Ala Pro Pro Ser Pro  
 805                      810                      815  
 Ser Ala Pro Pro Pro Val Val Pro Lys Glu Glu Lys Glu Glu Glu Thr  
 820                      825                      830  
 Ala Ala Ala Pro Pro Val Glu Glu Gly Glu Glu Gln Lys Pro Pro Ala  
 835                      840                      845  
 Ala Glu Glu Leu Ala Val Asp Thr Gly Lys Ala Glu Glu Pro Val Lys  
 850                      855                      860  
 Ser Glu Cys Thr Glu Glu Ala Glu Glu Gly Pro Ala Lys Gly Lys Asp  
 865                      870                      875                      880  
 Ala Glu Ala Ala Glu Ala Thr Ala Glu Gly Ala Leu Lys Ala Glu Lys  
 885                      890                      895  
 Lys Glu Gly Gly Ser Gly Arg Ala Thr Thr Ala Lys Ser Ser Gly Ala  
 900                      905                      910  
 Pro Gln Asp Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp  
 915                      920                      925  
 Glu Ala Glu Gly Gly Asp Lys Asn Arg Leu Leu Ser Pro Arg Pro Ser  
 930                      935                      940  
 Leu Leu Thr Pro Thr Gly Asp Pro Arg Ala Asn Ala Ser Pro Gln Lys  
 945                      950                      955                      960  
 Pro Leu Asp Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro  
 965                      970                      975  
 Ile Gln Val Thr Lys Val His Glu Pro Pro Arg Glu Asp Ala Ala Pro  
 980                      985                      990  
 Thr Lys Pro Ala Pro Pro Ala Pro Pro Pro Gln Asn Leu Gln Pro  
 995                      1000                      1005  
 Glu Ser Asp Ala Pro Gln Gln Pro Gly Ser Ser Pro Arg Gly Lys Ser  
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 Arg Ser Pro Ala Pro Pro Ala Asp Lys Glu Ala Phe Ala Ala Glu Ala

1025                      1030                      1035                      1040  
 Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr Ser Gly Leu Pro Phe  
                                  1045                      1050                      1055  
 Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser Pro His Ala Pro Asp  
                                  1060                      1065                      1070  
 Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His Pro Leu Pro Leu Gly  
                                  1075                      1080                      1085  
 Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg Pro Pro Thr Ile Ser  
                                  1090                      1095                      1100  
 Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Ser Val Leu Glu  
 1105                      1110                      1115                      1120  
 Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu His Val  
                                  1125                      1130                      1135  
 Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly Pro Val Thr Met Gly  
                                  1140                      1145                      1150  
 Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala Pro Phe Ser Gly Val  
                                  1155                      1160                      1165  
 Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala Gly Pro Pro Glu Ser  
                                  1170                      1175                      1180  
 Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val Leu Arg Gly Thr Ala  
 1185                      1190                      1195                      1200  
 Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys Gly Ile Pro Ser Thr  
                                  1205                      1210                      1215  
 Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg Gly Ser Ile Thr His  
                                  1220                      1225                      1230  
 Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr Ile Thr Arg Ile Ile  
                                  1235                      1240                      1245  
 Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly Arg Glu Asp Ser Leu  
                                  1250                      1255                      1260  
 Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys Gly His Val Leu Ser  
 1265                      1270                      1275                      1280  
 Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser Lys Glu Asp Gly Arg  
                                  1285                      1290                      1295  
 Ser Ser Ser Gly Pro Pro His Glu Thr Ala Ala Pro Lys Arg Thr Tyr  
                                  1300                      1305                      1310  
 Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile Ser Ser Ala Ser Ile  
                                  1315                      1320                      1325  
 Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu Arg His Ser Pro His  
                                  1330                      1335                      1340  
 His Leu Lys Glu Gln His His Ile Arg Gly Ser Ile Thr Gln Gly Ile  
 1345                      1350                      1355                      1360  
 Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr Leu Arg Arg Glu Ala  
                                  1365                      1370                      1375  
 Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro Pro Pro Ser Arg  
                                  1380                      1385                      1390  
 Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu Gly Pro Leu Lys Leu  
                                  1395                      1400                      1405  
 Lys Pro Ala His Glu Gly Leu Val Ala Thr Val Lys Glu Ala Gly Arg  
                                  1410                      1415                      1420  
 Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg His Thr Pro Glu Leu  
 1425                      1430                      1435                      1440  
 Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr  
                                  1445                      1450                      1455  
 Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr Gly Ser Lys Lys His

1460	1465	1470
Asp Val Arg Ser Leu Ile Gly Ser Pro Gly Arg Thr Phe Pro Pro Val		
1475	1480	1485
His Pro Leu Asp Val Met Ala Asp Ala Arg Ala Leu Glu Arg Ala Cys		
1490	1495	1500
Tyr Glu Glu Ser Leu Lys Ser Arg Pro Gly Thr Ala Ser Ser Ser Gly		
1505	1510	1515
Gly Ser Ile Ala Arg Gly Ala Pro Val Ile Val Pro Glu Leu Gly Lys		1520
1525	1530	1535
Pro Arg Gln Ser Pro Leu Thr Tyr Glu Asp His Gly Ala Pro Phe Ala		
1540	1545	1550
Gly His Leu Pro Arg Gly Ser Pro Val Thr Thr Arg Glu Pro Thr Pro		
1555	1560	1565
Arg Leu Gln Glu Gly Ser Leu Ser Ser Ser Lys Ala Ser Gln Asp Arg		
1570	1575	1580
Lys Leu Thr Ser Thr Pro Arg Glu Ile Ala Lys Ser Pro His Ser Thr		
1585	1590	1595
Val Pro Glu His His Pro His Pro Ile Ser Pro Tyr Glu His Leu Leu		1600
1605	1610	1615
Arg Gly Val Ser Gly Val Asp Leu Tyr Arg Ser His Ile Pro Leu Ala		
1620	1625	1630
Phe Asp Pro Thr Ser Ile Pro Arg Gly Ile Pro Leu Asp Ala Ala Ala		
1635	1640	1645
Ala Tyr Tyr Leu Pro Arg His Leu Ala Pro Asn Pro Thr Tyr Pro His		
1650	1655	1660
Leu Tyr Pro Pro Tyr Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala Leu		
1665	1670	1675
Glu Asn Arg Gln Thr Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln Met		1680
1685	1690	1695
His His Asn Thr Ala Thr Ala Met Ala Gln Arg Ala Asp Met Leu Arg		
1700	1705	1710
Gly Leu Ser Pro Arg Glu Ser Ser Leu Ala Leu Asn Tyr Ala Ala Gly		
1715	1720	1725
Pro Arg Gly Ile Ile Asp Leu Ser Gln Val Pro His Leu Pro Val Leu		
1730	1735	1740
Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala Met Asp Arg Leu Ala		
1745	1750	1755
Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser Arg His Ser Ser Ser		1760
1765	1770	1775
Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr Lys Pro Thr Thr Thr		
1780	1785	1790
Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp		
1795	1800	1805
Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr Thr Thr Val Glu His		
1810	1815	1820
Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser Ser Gly Ser Ser Gly		
1825	1830	1835
Ser Ser Gly Gly Gly Gly Gly Ser Ser Ser Arg Pro Ala Ser His Ser		1840
1845	1850	1855
His Ala His Gln His Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu		
1860	1865	1870
Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly Met Lys Gly Ile Ile		
1875	1880	1885
Thr Ala Val Glu Pro Ser Thr Pro Thr Val Leu Arg Ser Thr Ser Thr		



1890	1895	1900
Ser Ser Pro Val Arg	Pro Ala Ala Thr Phe	Pro Pro Ala Thr His Cys
1905	1910	1915
Pro Leu Gly Gly Thr	Leu Asp Gly Val Tyr	Pro Thr Leu Met Glu Pro
1925	1930	1935
Val Leu Leu Pro Lys	Glu Ala Pro Arg Val Ala Arg	Pro Glu Arg Pro
1940	1945	1950
Arg Ala Asp Thr Gly	His Ala Phe Leu Ala Lys	Pro Pro Ala Arg Ser
1955	1960	1965
Gly Leu Glu Pro Ala	Ser Ser Pro Ser Lys Gly	Ser Glu Pro Arg Pro
1970	1975	1980
Leu Val Pro Pro Val	Ser Gly His Ala Thr Ile	Ala Arg Thr Pro Ala
1985	1990	1995
Lys Asn Leu Ala Pro	His His Ala Ser Pro Asp	Pro Pro Ala Pro Pro
2005	2010	2015
Ala Ser Ala Ser Asp	Pro His Arg Glu Lys Thr	Gln Ser Lys Pro Phe
2020	2025	2030
Ser Ile Gln Glu Leu	Glu Leu Arg Ser Leu Gly Tyr	His Gly Ser Ser
2035	2040	2045
Tyr Ser Pro Glu Gly	Val Glu Pro Val Ser Pro	Val Ser Ser Pro Ser
2050	2055	2060
Leu Thr His Asp Lys	Gly Leu Pro Lys His Leu Glu	Glu Leu Asp Lys
2065	2070	2075
Ser His Leu Glu Gly	Glu Leu Arg Pro Lys Gln	Pro Gly Pro Val Lys
2085	2090	2095
Leu Gly Gly Glu Ala	Ala His Leu Pro His Leu Arg	Pro Leu Pro Glu
2100	2105	2110
Ser Gln Pro Ser Ser	Ser Pro Leu Leu Gln Thr	Ala Pro Gly Val Lys
2115	2120	2125
Gly His Gln Arg Val	Val Thr Leu Ala Gln His	Ile Ser Glu Val Ile
2130	2135	2140
Thr Gln Asp Tyr Thr	Arg His His Pro Gln Gln	Leu Ser Ala Pro Leu
2145	2150	2155
Pro Ala Pro Leu Tyr	Ser Phe Pro Gly Ala Ser	Cys Pro Val Leu Asp
2165	2170	2175
Leu Arg Arg Pro Pro	Ser Asp Leu Tyr Leu Pro	Pro Pro Asp His Gly
2180	2185	2190
Ala Pro Ala Arg Gly	Ser Pro His Ser Glu Gly	Gly Lys Arg Ser Pro
2195	2200	2205
Glu Pro Asn Lys Thr	Ser Val Leu Gly Gly Gly	Glu Asp Gly Ile Glu
2210	2215	2220
Pro Val Ser Pro Pro	Glu Gly Met Thr Glu Pro	Gly His Ser Arg Ser
2225	2230	2235
Ala Val Tyr Pro Leu	Leu Tyr Arg Asp Gly Glu	Gln Thr Glu Pro Ser
2245	2250	2255
Arg Met Gly Ser Lys	Ser Pro Gly Asn Thr Ser	Gln Pro Pro Ala Phe
2260	2265	2270
Phe Ser Lys Leu Thr	Glu Ser Asn Ser Ala Met	Val Lys Ser Lys Lys
2275	2280	2285
Gln Glu Ile Asn Lys	Lys Leu Asn Thr His Asn	Arg Asn Glu Pro Glu
2290	2295	2300
Tyr Asn Ile Ser Gln	Pro Gly Thr Glu Ile Phe	Asn Met Pro Ala Ile
2305	2310	2315
Thr Gly Thr Gly Leu	Met Thr Tyr Arg Ser Gln	Ala Val Gln Glu His

2325                      2330                      2335  
 Ala Ser Thr Asn Met Gly Leu Glu Ala Ile Ile Arg Lys Ala Leu Met  
 2340                      2345                      2350  
 Gly Lys Tyr Asp Gln Trp Glu Glu Ser Pro Pro Leu Ser Ala Asn Ala  
 2355                      2360                      2365  
 Phe Asn Pro Leu Asn Ala Ser Ala Ser Leu Pro Ala Ala Met Pro Ile  
 2370                      2375                      2380  
 Thr Ala Ala Asp Gly Arg Ser Asp His Thr Leu Thr Ser Pro Gly Gly  
 2385                      2390                      2395                      2400  
 Gly Gly Lys Ala Lys Val Ser Gly Arg Pro Ser Ser Arg Lys Ala Lys  
 2405                      2410                      2415  
 Ser Pro Ala Pro Gly Leu Ala Ser Gly Asp Arg Pro Pro Ser Val Ser  
 2420                      2425                      2430  
 Ser Val His Ser Glu Gly Asp Cys Asn Arg Arg Thr Pro Leu Thr Asn  
 2435                      2440                      2445  
 Arg Val Trp Glu Asp Arg Pro Ser Ser Ala Gly Ser Thr Pro Phe Pro  
 2450                      2455                      2460  
 Tyr Asn Pro Leu Ile Met Arg Leu Gln Ala Gly Val Met Ala Ser Pro  
 2465                      2470                      2475                      2480  
 Pro Pro Pro Gly Leu Pro Ala Gly Ser Gly Pro Leu Ala Gly Pro His  
 2485                      2490                      2495  
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 Thr Leu Ser Asp Ser Glu  
 2515

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 <211> 345  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gccaacggta tcttgaatgt gagcgcaaag gataaggcta ccggttaagga acagaagatt  
 180  
 cgcattcgaag cttcaagtgg tttagatcag gaagaaatcg acagaatgaa agctgaggca  
 240  
 gaacagaatg cagcagcagg caaggctgaa cgcgaaaaga ttgataagct gaaccaagct  
 300  
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 345

<210> 678  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 678  
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 1                      5                      10                      15  
 Gln Phe Thr Leu Glu Gly Ile Ala Pro Ala Arg Arg Gly Val Pro Gln

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      20      25      30
Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser
      35      40      45
Ala Lys Asp Lys Ala Thr Gly Lys Glu Gln Lys Ile Arg Ile Glu Ala
      50      55      60
Ser Ser Gly Leu Ser Gln Glu Glu Ile Asp Arg Met Lys Ala Glu Ala
      65      70      75      80
Glu Gln Asn Ala Ala Ala Gly Lys Ala Glu Arg Glu Lys Ile Asp Lys
      85      90      95
Leu Asn Gln Ala Asp Ser Met Ile Ser Pro Pro Glu Asn Ser
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&lt;210&gt; 679

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 679

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ggtacaggcc tggatttcaa gcgtgccatt gctgacgtca cgcattgtgcc acccgaacgc
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caaaaagtac tcatacaggg aggattgcta aaagacgata cccattagg taaagtgggt
240
gcgcgtgcag gacagcagtt catggtgctg ggtgctgtgg gtgagctgcc caaggcccca
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gaaaaacctg tgctgttctt ggaggatttg ccggaagacg agctcaacaa ggctaaggat
360
cc
362

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&lt;210&gt; 680

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 680

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Met Asn Leu Glu Gly Thr Gly Leu Asp Phe Lys Arg Ala Ile Ala Asp
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Val Thr His Val Pro Pro Glu Arg Gln Lys Val Leu Ile Lys Gly Gly
      35      40      45
Leu Leu Lys Asp Asp Thr Pro Leu Gly Lys Val Gly Ala Arg Ala Gly
      50      55      60
Gln Gln Phe Met Val Leu Gly Ala Val Gly Glu Leu Pro Lys Ala Pro
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Glu Lys Pro Val Leu Phe Leu Glu Asp Leu Pro Glu Asp Glu Leu Asn
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Lys Ala Lys Asp
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<210> 681  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

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 gaacaattac tgatggcaga ctgttcaaca gtagaagaaa tgattcacgc tgatgaactc  
 120  
 ggttttgatt ttatcggaag tacttttagta ggatatacaa aacaaagtaa aggtgacaaa  
 180  
 atcgaagaaa atgactttga aatcttgaga acagtttttag aacgaattaa acatccacta  
 240  
 attgcagaag gcaatatcga tacacctgaa aagggtgaaac gtgtgcttga gttaggcgcg  
 300  
 tatagtgtcg ttgtaggggc agcgattact cgtccacaac tcattcacgaa aaaattt  
 357

<210> 682  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 682  
 Thr Arg Pro Asn Gly Gln Thr Leu Asp Asp Phe Tyr His Glu Ile Arg  
 1 5 10 15  
 Ala Lys Tyr Pro Glu Gln Leu Leu Met Ala Asp Cys Ser Thr Val Glu  
 20 25 30  
 Glu Met Ile His Ala Asp Glu Leu Gly Phe Asp Phe Ile Gly Ser Thr  
 35 40 45  
 Leu Val Gly Tyr Thr Lys Gln Ser Lys Gly Asp Lys Ile Glu Glu Asn  
 50 55 60  
 Asp Phe Glu Ile Leu Arg Thr Val Leu Glu Arg Ile Lys His Pro Leu  
 65 70 75 80  
 Ile Ala Glu Gly Asn Ile Asp Thr Pro Glu Lys Val Lys Arg Val Leu  
 85 90 95  
 Glu Leu Gly Ala Tyr Ser Val Val Val Gly Ser Ala Ile Thr Arg Pro  
 100 105 110  
 Gln Leu Ile Thr Lys Lys Phe  
 115

<210> 683  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 683  
 ntctccgacc gcgtggtaaa actggcgacc ttaattgctg aagatgagca agctgaaatg  
 60  
 aatattgttt tgcccgagc gtggttgcatt gattgcgtca gttaccctaa aaaccatgta  
 120  
 ttaagagcac aaagtgcatt acatgcagca gataaagcga ttgtattttt gcgcagtatt  
 180

aattacccca aacaatactt attagcaatt catcatgcaa tttcagcgca cagtgtcagt  
 240  
 ggtaaaatac aggcaatgag tttagaagct caaatagtgc aagatgcaga tagattggat  
 300  
 gcgctagggg caattggcgt ggctcgttgc attcaagtaa gtagccagtt acagcgccca  
 360  
 ctatattctg aagttgaccc cttcagcgag acacgatctc tagtctgcat g  
 411

<210> 684  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 684  
 Xaa Ser Asp Arg Val Val Lys Leu Ala Thr Leu Ile Ala Glu Asp Glu  
 1 5 10 15  
 Gln Ala Glu Met Asn Ile Val Leu Pro Ala Ala Trp Leu His Asp Cys  
 20 25 30  
 Val Ser Tyr Pro Lys Asn His Val Leu Arg Ala Gln Ser Ala Leu His  
 35 40 45  
 Ala Ala Asp Lys Ala Ile Val Phe Leu Arg Ser Ile Asn Tyr Pro Lys  
 50 55 60  
 Gln Tyr Leu Leu Ala Ile His His Ala Ile Ser Ala His Ser Val Ser  
 65 70 75 80  
 Gly Lys Ile Gln Ala Met Ser Leu Glu Ala Gln Ile Val Gln Asp Ala  
 85 90 95  
 Asp Arg Leu Asp Ala Leu Gly Ala Ile Gly Val Ala Arg Cys Ile Gln  
 100 105 110  
 Val Ser Ser Gln Leu Gln Arg Pro Leu Tyr Ser Glu Val Asp Pro Phe  
 115 120 125  
 Ser Glu Thr Arg Ser Leu Val Cys Met  
 130 135

<210> 685  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 685  
 acgcgttgcg ttgcggagtg aaccgggaac gatggatgga ttgacactat tcggcctggt  
 60  
 cgccgtcact gcgatgctgg tctgctatgc catggaggac cgcagccact ggctcgtgct  
 120  
 gctgttcgcg gccgcttggc gctcggttcg gcctacggct tcctccaagg cgctggccg  
 180  
 ttcggcttcg tcgaggcgat atgggcgctc gttgcctgcg gcgtggtgga cgatcaggcc  
 240  
 gcgatgaccg catcgtccgg cttaagcccg gaaacgaaac cgaccagtgc gctggtttga  
 300  
 tgggcggcgc gtcgctggat gcacagcgtc tcgacgcgag cgtgatgatg gcctcagcgc  
 360  
 gtgcatgccc acgctgtcgc tcacgcgct acgctcgacc acggcgcgcg gcaatag  
 417

<210> 686  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 686  
 Met Pro Trp Arg Thr Ala Ala Thr Gly Ser Cys Cys Cys Ser Arg Pro  
 1 5 10 15  
 Leu Gly Ala Arg Phe Gly Leu Arg Leu Pro Pro Arg Arg Leu Ala Val  
 20 25 30  
 Arg Leu Arg Arg Gly Asp Met Gly Ala Arg Cys Leu Arg Arg Gly Gly  
 35 40 45  
 Arg Ser Gly Arg Asp Asp Arg Ile Val Arg Leu Lys Pro Gly Asn Glu  
 50 55 60  
 Thr Asp Gln Cys Ala Gly Leu Met Gly Gly Ala Ser Leu Asp Ala Gln  
 65 70 75 80  
 Arg Leu Asp Ala Ser Val Met Met Ala Ser Ala Arg Ala Cys Arg Arg  
 85 90 95  
 Cys Arg Ser Ser Arg Tyr Ala Arg Pro Arg Arg Ala Ala Ile  
 100 105 110

<210> 687  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 687  
 nnacgcgtga ccgaccaact gcgagccacc ctgctcgcca tggctgctat ggggttgac  
 60  
 gacggcatcg atattccgtc tggggcgatt attgaaagct gccgcacctt atcagccggt  
 120  
 ctcgatgaaa cccacggtgg tcgcacgata gagcttcggg taccacctgc gtgcgcggtt  
 180  
 caattggcgg ccattgagtc gggccccaac caccaccggg gcactccgcc caatgtggcc  
 240  
 gagaccgacc ctgtcacctt cctgcagttg gcaactggct tctcacactg gccagaaatg  
 300  
 cgctcagcag gacgggttca ggcgtctgga tcccacgtcg acgacgttgc tggcgtgttc  
 360  
 ccagtcgttg atatggccgg ggttttccgc gacatttttg ccgacgacta ga  
 412

<210> 688  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 688  
 Xaa Arg Val Thr Asp Gln Leu Arg Ala Thr Leu Leu Ala Met Ala Ala  
 1 5 10 15  
 Met Gly Leu His Asp Gly Ile Asp Ile Pro Ser Gly Ala Ile Ile Glu  
 20 25 30  
 Ser Cys Arg Thr Leu Ser Ala Val Leu Asp Glu Thr His Gly Gly Arg

```

      35              40              45
Thr Ile Glu Leu Arg Val Pro Pro Ala Cys Ala Val Gln Leu Ala Ala
      50              55              60
Ile Glu Ser Gly Pro Asn His His Arg Gly Thr Pro Pro Asn Val Ala
65              70              75              80
Glu Thr Asp Pro Val Thr Phe Leu Gln Leu Ala Thr Gly Phe Ser His
      85              90              95
Trp Pro Glu Met Arg Ser Ala Gly Arg Val Gln Ala Ser Gly Ser His
      100             105             110
Val Asp Asp Val Ala Gly Val Phe Pro Val Val Asp Met Ala Gly Val
      115             120             125
Phe Arg Asp Ile Phe Ala Asp Asp
      130             135

```

<210> 689  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

```

<400> 689
cgcgctgcgg tactcgacgt cgattttcat cacggtaacg gcacccagaa cattttttac
60
ccgcgcaatg acgtgatgtt catatcgctg cacggcgagc cggccgtgtc ctatccctac
120
tattcggggg tcagcgatga agtcggcgca ggtgttggcg aagggttcaa cctcaactac
180
ccgctgccga aaaacaccgc ctgggatacc taccgcgacg ccctgctgca tgcctgcagg
240
aaactccagc aattctcgcc gcaggtattg gtgatctcac tgggggtcga caccttcaag
300
gacgaccoga tcagtcactt cctgctggaa ggcgaggatt tcatcgggat cggcgagctg
360
atagcgagtg tgggttggcc caccctgttt gtgatggaag gcggctatat ggtcgatgaa
420
atcggaatca acgcggtgaa cgtactgcat ggcttcgaga gcaagcgcgc ttgagcatcc
480
gcccgaagac ggcgtgata
499

```

<210> 690  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 690
Arg Val Ala Val Leu Asp Val Asp Phe His His Gly Asn Gly Thr Gln
1              5              10              15
Asn Ile Phe Tyr Pro Arg Asn Asp Val Met Phe Ile Ser Leu His Gly
      20              25              30
Glu Pro Ala Val Ser Tyr Pro Tyr Tyr Ser Gly Phe Ser Asp Glu Val
      35              40              45
Gly Ala Gly Val Gly Glu Gly Phe Asn Leu Asn Tyr Pro Leu Pro Lys
      50              55              60
Asn Thr Ala Trp Asp Thr Tyr Arg Asp Ala Leu Leu His Ala Cys Arg

```

```

65          70          75          80
Lys Leu Gln Gln Phe Ser Pro Gln Val Leu Val Ile Ser Leu Gly Val
      85          90          95
Asp Thr Phe Lys Asp Asp Pro Ile Ser His Phe Leu Leu Glu Gly Glu
      100          105          110
Asp Phe Ile Gly Ile Gly Glu Leu Ile Ala Ser Val Gly Cys Pro Thr
      115          120          125
Leu Phe Val Met Glu Gly Gly Tyr Met Val Asp Glu Ile Gly Ile Asn
      130          135          140
Ala Val Asn Val Leu His Gly Phe Glu Ser Lys Arg Ala
145          150          155

```

<210> 691  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

```

<400> 691
ntgctgctg aaaacgtgca gcgcggcgca tcagcgactg gcgagcgctt tggctggagt
60
tcgcaaaggc aagggccctg ggagttggcc tgcgacatcg cgctgccgtg cgccaccag
120
aacgaactgg acgccgacgc cgccgcacg ctgctgcgca acggctgcct ttgctgggt
180
ggaggcgca atattgccgc cgcgcttgag gctgtggata tctttatcga ggcgggcatt
240
ctgttcgcgc ccggcaaggc atccaatgcc ggcggcgctg ccgtgagtgg cctggaaatg
300
tcgcagaacg ccatgcccct gctgtggacc gccggc
336

```

<210> 692  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

```

<400> 692
Xaa Leu Arg Glu Asn Val Gln Arg Gly Ala Ser Ala Thr Gly Glu Arg
1      5      10      15
Phe Gly Trp Ser Ser Gln Arg Gln Gly Pro Trp Glu Leu Ala Cys Asp
      20      25      30
Ile Ala Leu Pro Cys Ala Thr Gln Asn Glu Leu Asp Ala Asp Ala Ala
      35      40      45
Arg Thr Leu Leu Arg Asn Gly Cys Leu Cys Val Ala Gly Gly Ala Asn
      50      55      60
Met Pro Pro Ala Leu Glu Ala Val Asp Ile Phe Ile Glu Ala Gly Ile
65      70      75      80
Leu Phe Ala Pro Gly Lys Ala Ser Asn Ala Gly Gly Val Ala Val Ser
      85      90      95
Gly Leu Glu Met Ser Gln Asn Ala Met Arg Leu Leu Trp Thr Ala Gly
100          105          110

```

<210> 693  
 <211> 580



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 693

```

ngggcaaccc ggaagggtccg gcgtcccagc cgcttacctc gctgggaccc tggctcttgct
60
gtcccccgct ggcctcctgc ccaagcgact gcggccagga tgggccggaa ggtgaccgtg
120
gccacctgcg cactcaacca gtggggccctg gacttcgagg gcaatttgca aagaatttta
180
aagagtattg aaattgccaa aaacagagga gcaagataca ggcttgacc agagctggaa
240
atatgctggt gcggatgttg ggatcattat tacgagtcgg acaccctctt gcactcgttt
300
caagtcctag cggcccttgt ggagtctccc gtcactcagg acatcatctg cgacgtgggg
360
atacctgtaa tgcaccgaaa cgtccgctac aactgcagag tgatattcct caacaggaag
420
atcctgctca tcagacccaa gatggccttg gccaatgaag gcaactaccg cgagctgcgc
480
tgggtcacc cgtggctcag gagtcggtga gtcgggtgcc tgaccactcc tgggatgtgc
540
gttaagcacc tccgctgtgt gtagccttgg gtcctgatca
580

```

&lt;210&gt; 694

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 694

```

Met Gly Arg Lys Val Thr Val Ala Thr Cys Ala Leu Asn Gln Trp Ala
1      5      10      15
Leu Asp Phe Glu Gly Asn Leu Gln Arg Ile Leu Lys Ser Ile Glu Ile
20     25     30
Ala Lys Asn Arg Gly Ala Arg Tyr Arg Leu Gly Pro Glu Leu Glu Ile
35     40     45
Cys Gly Cys Gly Cys Trp Asp His Tyr Tyr Glu Ser Asp Thr Leu Leu
50     55     60
His Ser Phe Gln Val Leu Ala Ala Leu Val Glu Ser Pro Val Thr Gln
65     70     75     80
Asp Ile Ile Cys Asp Val Gly Ile Pro Val Met His Arg Asn Val Arg
85     90     95
Tyr Asn Cys Arg Val Ile Phe Leu Asn Arg Lys Ile Leu Leu Ile Arg
100    105    110
Pro Lys Met Ala Leu Ala Asn Glu Gly Asn Tyr Arg Glu Leu Arg Trp
115    120    125
Phe Thr Pro Trp Ser Arg Ser Arg
130    135

```

&lt;210&gt; 695

&lt;211&gt; 439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 695  
 ntggtgactc aggcgtccaa tggcacgatg gctgacgtcg tcaatatgcc gtctctgacc  
 60  
 atcatggctc tgcgagggc tgattacctg ctcgatatcg agacttcggt gcccggtatc  
 120  
 ggcgacaagt tcgtcccga cgtctggggc aaactcaaac tcggcaagga caacgagcac  
 180  
 accgctctgc cctggtaactt cggcccggtc gtcgtgacgt acaacaagga cattttcaag  
 240  
 gatgttgccc tcgatcccg aatcccgccg aagacgatga ccgagtacct cgacttcgcc  
 300  
 aagaaaatca ccgctgccgg caagcaggcg gtctatggca acacgtcgtg gtacatgctc  
 360  
 gcggaatggc gtgccctcgg cgtcaaggtc atgaatgacg acttcaccaa gttcactttt  
 420  
 gcctcggaat ccaacgcgt  
 439

<210> 696  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<400> 696  
 Xaa Val Thr Gln Ala Ser Asn Gly Thr Met Ala Asp Val Val Asn Met  
 1 5 10 15  
 Pro Ser Ser Thr Ile Met Ala Leu Ser Arg Ala Asp Tyr Leu Leu Asp  
 20 25 30  
 Ile Glu Thr Ser Val Pro Gly Ile Gly Asp Lys Phe Val Pro Asp Val  
 35 40 45  
 Trp Gly Lys Leu Lys Leu Gly Lys Asp Asn Glu His Thr Ala Leu Pro  
 50 55 60  
 Trp Tyr Phe Gly Pro Phe Val Val Thr Tyr Asn Lys Asp Ile Phe Lys  
 65 70 75 80  
 Asp Val Gly Leu Asp Pro Glu Ile Pro Pro Lys Thr Met Thr Glu Tyr  
 85 90 95  
 Leu Asp Phe Ala Lys Lys Ile Thr Ala Ala Gly Lys Gln Ala Val Tyr  
 100 105 110  
 Gly Asn Thr Ser Trp Tyr Met Leu Ala Glu Trp Arg Ala Leu Gly Val  
 115 120 125  
 Lys Val Met Asn Asp Asp Phe Thr Lys Phe Thr Phe Ala Ser Glu Ser  
 130 135 140  
 Asn Ala  
 145

<210> 697  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 697  
 nggcaataac gccgtcgtcg aaatccgttc ccttgatctc gaacatgccg atgaagcgg  
 60

tgtcggatgat ggggtcggag atgtcgccct cccacaactt gaacttgatc ggaccaaccc  
 120  
 ttccaccctt ggagagactc gctgccttg aaagtcttct tgcccttctt gggcaactga  
 180  
 tcgcccctcc gaacgagata atccaagctc aagcgaccgc ccaccttgtc gcgcgcctcc  
 240  
 acaccgacgg aatgcgatgc cgggatcgca tcgatgctag cggcgggtgcg tgcaatgaca  
 300  
 atcttgtctt cagcagcga tacgggcccg ccgttggaat cgaacacaaa caccttgaag  
 360  
 gcgttgtn  
 368

<210> 698  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 698  
 Met Pro Met Lys Arg Leu Ser Val Met Gly Ser Glu Met Ser Pro Ser  
 1 5 10 15  
 His Asn Leu Asn Leu Ile Gly Pro Thr Leu Ser Thr Leu Glu Arg Leu  
 20 25 30  
 Ala Cys Leu Glu Ser Leu Leu Ala Leu Leu Gly Gln Leu Ile Ala Leu  
 35 40 45  
 Pro Asn Glu Ile Ile Gln Ala Gln Ala Thr Ala His Leu Val Ala Arg  
 50 55 60  
 Leu His Thr Asp Gly Met Arg Cys Arg Asp Arg Ile Asp Ala Ser Gly  
 65 70 75 80  
 Gly Ala Cys Asn Asp Asn Leu Val Phe Thr Gln Arg Tyr Gly Pro Ala  
 85 90 95  
 Val Gly Ile Glu His Lys His Leu Glu Gly Val Val  
 100 105

<210> 699  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<400> 699  
 nacgcgtaca caaatagtat cggaatcatt tcctatcatg ctgctatgac gagatttctc  
 60  
 cacacctcag attggcaact ggggatgact cggcactacc tgtcgaagcg cggcgacgac  
 120  
 gacccacagg cacggtttac tgccgatcga atcgagacgg tgcgcaggct gggcgacggt  
 180  
 gcccggaagg agggctgcga gtttgtcgtc gtcgccggag atgtcttcga aaccacaaat  
 240  
 gtctccactc agatcattgc ccgcgcgtgt gaggcgatag cctccattga tctccccgtg  
 300  
 tacctgctgc ccggaaatca cgacagetta gagecgggggt gtctctggga tgggccagaa  
 360  
 ttc  
 363

<210> 700  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 700  
 Xaa Ala Tyr Thr Asn Ser Ile Gly Ile Ile Ser Tyr His Ala Ala Met  
 1 5 10 15  
 Thr Arg Phe Leu His Thr Ser Asp Trp Gln Leu Gly Met Thr Arg His  
 20 25 30  
 Tyr Leu Ser Lys Arg Gly Asp Asp Pro Gln Ala Arg Phe Thr Ala  
 35 40 45  
 Asp Arg Ile Glu Thr Val Arg Arg Leu Gly Asp Val Ala Arg Lys Glu  
 50 55 60  
 Gly Cys Glu Phe Val Val Ala Gly Asp Val Phe Glu Thr His Asn  
 65 70 75 80  
 Val Ser Thr Gln Ile Ile Ala Arg Ala Cys Glu Ala Ile Ala Ser Ile  
 85 90 95  
 Asp Leu Pro Val Tyr Leu Leu Pro Gly Asn His Asp Ser Leu Glu Pro  
 100 105 110  
 Gly Cys Leu Trp Asp Gly Pro Glu Phe  
 115 120

<210> 701  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 701  
 nacgcgtccg ggcacaccgt caccgaggcg acgttccacg gccacccac gctgatctat  
 60  
 ttcggctacg tccattgcgc ggatgtctgc cgcgtgacac tgggcaacat ggtctcggcg  
 120  
 ctcgatcgcc tgggctcccg ggcggaaggc atcggtccga tcttcatctc cgtcgatccg  
 180  
 gcccgcgaca caccgcgct ggtcggacag tatgtcgcgc atttctcgcc gcggatcgtc  
 240  
 gggctgaccg gcaccgcagc gcagctggcg ccggtactgg cggagttcca catcaccgcg  
 300  
 cgcgccgaac ctgcggcaca cgacatggcc gccgacatgt atgccgtcga ccacagcgcc  
 360  
 ctctctatc tgatggacgg caacaaccgc ctggttgcggg tgatggcggt cagcgccgac  
 420  
 gctgcctcgc tgacgcacca gctggcgggc gccctggcgg gggcaagaat gagaccatga  
 480  
 aagcgatcgg accgacggac gccccgaac aggcagcgcc gggctggctg ttcggcatca  
 540  
 tcctgctgct cggcatcgcc ggcattgctg atttcgtcga ccggt  
 585

<210> 702  
 <211> 159  
 <212> PRT

<213> Homo sapiens

<400> 702

```

Xaa Ala Ser Gly His Thr Val Thr Glu Ala Thr Phe His Gly His Pro
 1           5           10           15
Thr Leu Ile Tyr Phe Gly Tyr Val His Cys Ala Asp Val Cys Pro Leu
 20           25           30
Thr Leu Gly Asn Met Val Ser Ala Leu Asp Arg Leu Gly Ser Arg Ala
 35           40           45
Asp Gly Ile Val Pro Ile Phe Ile Ser Val Asp Pro Ala Arg Asp Thr
 50           55           60
Pro Ala Leu Val Gly Gln Tyr Val Ala His Phe Ser Pro Arg Ile Val
 65           70           75           80
Gly Leu Thr Gly Thr Ala Ala Gln Leu Ala Pro Val Leu Ala Glu Phe
 85           90           95
His Ile Thr Ala Arg Ala Glu Pro Ala Ala His Asp Met Ala Ala Asp
100           105           110
Met Tyr Ala Val Asp His Ser Ala Leu Leu Tyr Leu Met Asp Gly Asn
115           120           125
Asn Arg Leu Leu Arg Val Met Ala Val Ser Ala Asp Ala Ala Ser Leu
130           135           140
Thr His Gln Leu Ala Ala Gly Leu Ala Gly Ala Arg Met Arg Pro
145           150           155

```

<210> 703

<211> 390

<212> DNA

<213> Homo sapiens

<400> 703

```

ttctctgctc catcacacc tcagcagaat ggcacgcgcg agcgcaagaa cataactctt
60
attgagatgg cccgaacgat gcttgatgag tacaagactc cgcggaagtt ctggcctgaa
120
gccattgata ctgcttgta caccatcaac cgcgtttatc ttcacaaggt tttggagaaa
180
acctcttatg agttcctaac tggttaagaaa cccaatgtaa gctatttcag agtatttggt
240
gctaggtgct ggatcaagga tcctcatcac acttcaaaat ttgcaccgaa agcacatgaa
300
ggttttatgc ttgggttacgg aaaggattcg cactcctaca gagtcttcaa cctctttcac
360
tataaagtgg ttcaaactgt ggatgtgcgn
390

```

<210> 704

<211> 130

<212> PRT

<213> Homo sapiens

<400> 704

```

Phe Ser Ala Pro Tyr Thr Pro Gln Gln Asn Gly Ile Ala Glu Arg Lys
 1           5           10           15
Asn Ile Thr Leu Ile Glu Met Ala Arg Thr Met Leu Asp Glu Tyr Lys

```

```

      20      25      30
Thr Pro Arg Lys Phe Trp Pro Glu Ala Ile Asp Thr Ala Cys His Thr
      35      40      45
Ile Asn Arg Val Tyr Leu His Lys Val Leu Glu Lys Thr Ser Tyr Glu
      50      55      60
Phe Leu Thr Gly Lys Lys Pro Asn Val Ser Tyr Phe Arg Val Phe Gly
65      70      75      80
Ala Arg Cys Trp Ile Lys Asp Pro His His Thr Ser Lys Phe Ala Pro
      85      90      95
Lys Ala His Glu Gly Phe Met Leu Gly Tyr Gly Lys Asp Ser His Ser
      100      105      110
Tyr Arg Val Phe Asn Leu Phe His Tyr Lys Val Val Gln Thr Val Asp
      115      120      125
Val Arg
      130

```

<210> 705  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

```

<400> 705
acgcgtattt cgtccaaatg attcaaatca aaacgccgcc gttaaaaacg atgcaggcga
60
agacaatgcg aataaaaaag gtggtaaata agcatgagtt ttaaaatgac acaatctcaa
120
tacacaagtc tttatggacc aactgtagga gactccgtga gattaggaga tacgaacttg
180
tttgcacaaag ttgagaaaga ctatgcaaatt tatgggggatg aagctacttt cgggtggcgga
240
aaatcaattc gtgatgggtat ggctcaaaat cctaattgta caagagatga taaaaatgta
300
gccgatttag ttttaactaa cgcattaatt attgattatg acaagattgt taaagcagat
360
atcgggtatta aaaatgggta tatttttaag attggtaaag ctggaaaccc agatataatg
420
gataacgttg acatcatcat tgggtgcaaca actgatatta ttgctgctga aggtaaaatt
480
gttactgccg gcggtatcga tacacacgtg cac
513

```

<210> 706  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 706
Met Ser Phe Lys Met Thr Gln Ser Gln Tyr Thr Ser Leu Tyr Gly Pro
1      5      10      15
Thr Val Gly Asp Ser Val Arg Leu Gly Asp Thr Asn Leu Phe Ala Gln
      20      25      30
Val Glu Lys Asp Tyr Ala Asn Tyr Gly Asp Glu Ala Thr Phe Gly Gly
      35      40      45
Gly Lys Ser Ile Arg Asp Gly Met Ala Gln Asn Pro Asn Val Thr Arg

```

```

      50              55              60
Asp Asp Lys Asn Val Ala Asp Leu Val Leu Thr Asn Ala Leu Ile Ile
65              70              75              80
Asp Tyr Asp Lys Ile Val Lys Ala Asp Ile Gly Ile Lys Asn Gly Tyr
      85              90              95
Ile Phe Lys Ile Gly Lys Ala Gly Asn Pro Asp Ile Met Asp Asn Val
      100             105             110
Asp Ile Ile Ile Gly Ala Thr Thr Asp Ile Ile Ala Ala Glu Gly Lys
      115             120             125
Ile Val Thr Ala Gly Gly Ile Asp Thr His Val His
      130             135             140

```

<210> 707  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

```

<400> 707
acgcgtggca tcctcagacc accaaagaca atcctgtcct gggaggcagg gagaaagccg
60
gcacactaca cagtgcacag gtgaagccct caggggggtcc tggagcaggg ccacctccct
120
gggggatccc caggtgccat tttcatggca gtgtctatgg acggctcccc ttggcatggg
180
gctgggtggc aatcctggct gtagctgccca cccctgccc tttttgcttc cctccgaggg
240
cattgtgatc atcagtgtga gtctgttggg aaggagagcc aggtccccag gtttgggaaa
300
ggagtagggg ttcccagcct gtctggccat cccccccag ccagcccct cctgctgggt
360
gacgtgctca gttcggcccc tgctgtactg ggagggggct aggagcata
409

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<210> 708  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

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<400> 708
Met Leu Leu Ala Pro Ser Gln Tyr Ser Arg Gly Arg Thr Glu His Val
1      5      10      15
Thr Gln Gln Glu Gly Leu Gly Trp Gly Val Met Ala Arg Gln Ala Gly
20     25     30
Lys Pro Tyr Ser Phe Pro Lys Pro Gly Asp Leu Ala Leu Leu Pro Asn
35     40     45
Arg Leu Thr Leu Met Ile Thr Met Pro Ser Glu Gly Ser Lys Lys Gly
50     55     60
Arg Gly Trp Gln Leu Gln Pro Gly Leu Pro Pro Ser Thr Met Pro Arg
65     70     75     80
Gly Ala Val His Arg His Cys His Glu Asn Gly Thr Trp Gly Ser Pro
85     90     95
Arg Glu Val Ala Leu Leu Gln Asp Pro Leu Arg Ala Ser Pro Val His
100    105    110
Cys Val Val Cys Arg Leu Ser Pro Cys Leu Pro Gly Gln Asp Cys Leu

```

115 120 125  
 Trp Trp Ser Glu Asp Ala Thr Arg  
 130 135

<210> 709  
 <211> 771  
 <212> DNA  
 <213> Homo sapiens

<400> 709  
 acgcgtctga cggagagcct cctgagtctc cccacgcaga ggactcagaa agggaaatcgg  
 60  
 tgaccacacc tgggccagcg acgtgtggtg cgccagcctc cccagcggat cacctcctcc  
 120  
 tcccctccca ggaggagagt ttctccgaag tcccatgag tgaagcaagc tcagcgaaag  
 180  
 acactccact ctttaggatg gagggagagg atgcccttgt gactcagtat cagagcaaag  
 240  
 ccagtgacca cgaaggttta ttgtctgacc ccttgagtga ccttcagttg gtctcagatt  
 300  
 ttaaattctcc aatcatggcc gatctgaact taagccttcc ttccattcct gaagtcgcat  
 360  
 cggatgatga aagaatagat caggttgaag atgacggaga tcaggttgaa gatgatggag  
 420  
 agacagcaaa gtcgtcaact ctggacatag gagctttgtc cttgggcttg gtagtccctc  
 480  
 gtcttgagag gggaaagggg cccagtggcg aggcagatag gttggtactg ggggagggcc  
 540  
 tgtgtgattt caggctgcaa gcaccccagg catctgtgac agctccttca gagcagacca  
 600  
 cagagttcgg aattcacaaa ccacatcttg gcaagagctc aagcttggat aaacagctcg  
 660  
 caggccccag tgggtggtgag gaagaaaaac cgatgggaaa tgggagtcca agcccgctc  
 720  
 ctggcacatc cctggacaat cctgtaccca gcccctcccc ttctgagatc t  
 771

<210> 710  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 710  
 Met Ser Glu Ala Ser Ser Ala Lys Asp Thr Pro Leu Phe Arg Met Glu  
 1 5 10 15  
 Gly Glu Asp Ala Leu Val Thr Gln Tyr Gln Ser Lys Ala Ser Asp His  
 20 25 30  
 Glu Gly Leu Leu Ser Asp Pro Leu Ser Asp Leu Gln Leu Val Ser Asp  
 35 40 45  
 Phe Lys Ser Pro Ile Met Ala Asp Leu Asn Leu Ser Leu Pro Ser Ile  
 50 55 60  
 Pro Glu Val Ala Ser Asp Asp Glu Arg Ile Asp Gln Val Glu Asp Asp  
 65 70 75 80  
 Gly Asp Gln Val Glu Asp Asp Gly Glu Thr Ala Lys Ser Ser Thr Leu



```

      85              90              95
Asp Ile Gly Ala Leu Ser Leu Gly Leu Val Val Pro Cys Pro Glu Arg
      100              105              110
Gly Lys Gly Pro Ser Gly Glu Ala Asp Arg Leu Val Leu Gly Glu Gly
      115              120              125
Leu Cys Asp Phe Arg Leu Gln Ala Pro Gln Ala Ser Val Thr Ala Pro
      130              135              140
Ser Glu Gln Thr Thr Glu Phe Gly Ile His Lys Pro His Leu Gly Lys
      145              150              155              160
Ser Ser Ser Leu Asp Lys Gln Leu Pro Gly Pro Ser Gly Gly Glu Glu
      165              170              175
Glu Lys Pro Met Gly Asn Gly Ser Pro Ser Pro Pro Pro Gly Thr Ser
      180              185              190
Leu Asp Asn Pro Val Pro Ser Pro Ser Pro Ser Glu Ile
      195              200              205

```

<210> 711  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

```

<400> 711
nnggatccga cggcgcaaag ccttaatgaa gggtaggcag ttacctcttt ttctgtagga
60
attctcctgt tttatatcta ctcccccta ggttcacact actccctcat cttctgagct
120
aatgtgcccc ctttatttgc acttgcatgg aatatgatta tgaacacagt ttttatcatt
180
gatgaccacc ccgttatcag gttggcgatt cgtatgttgt tggaacacga gggttataag
240
gtcgttggtg aaacggacaa cggttgtgac gcgatccaaa tggttcgcca atgcctgccg
300
gacctgatca tcctggatat cagcatcccc aaactcgacg gcctcgaagt gctctgccga
360
ttcaacgcca tgaacacatc catgaaaacc ctgattctta ccgccagag tccgacgttg
420
ttcgccacgc gt
432

```

<210> 712  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

```

<400> 712
Met Ile Met Asn Thr Val Phe Ile Ile Asp Asp His Pro Val Ile Arg
  1             5             10             15
Leu Ala Ile Arg Met Leu Leu Glu His Glu Gly Tyr Lys Val Val Gly
      20             25             30
Glu Thr Asp Asn Gly Cys Asp Ala Ile Gln Met Val Arg Glu Cys Leu
      35             40             45
Pro Asp Leu Ile Ile Leu Asp Ile Ser Ile Pro Lys Leu Asp Gly Leu
      50             55             60
Glu Val Leu Cys Arg Phe Asn Ala Met Asn Thr Ser Met Lys Thr Leu

```

```

65          70          75          80
Ile Leu Thr Ala Gln Ser Pro Thr Leu Phe Ala Thr Arg
      85          90

<210> 713
<211> 465
<212> DNA
<213> Homo sapiens

<400> 713
atcctgatcg ccaacggtgg tatgcagaac ccggtgggcg cgggtgtcaa ccccgacacc
60
atgcgcatgg aaatgaccga cttcgccgcg gtgatcttca acccggtggc gcaggccaag
120
ttcgtgcata cggtcagcgc gggctacgtg gccggcgcca tgttcgtcat gtcgatcagc
180
gcctgggtacc tgctcaaggg ccgccacacc gacctggcca agcgcctcgat ggcgggtcgcc
240
gccagcttcg gcctggcgtc ggcgctgtcg gtcgctgtgc tgggtgacga aagcggttat
300
ctcaccaccg aacaccagaa gatgaagatc gcggccatgg aatccatgtg gcacaccgag
360
ccggcgcccg cgtccttcaa cctgatcgcg ctgcccaccc aggccgaacg caagaacgac
420
ttcgccatcg agattcccta cgtcatgngc ctcateggca cgcgt
465

<210> 714
<211> 155
<212> PRT
<213> Homo sapiens

<400> 714
Ile Leu Ile Ala Asn Gly Gly Met Gln Asn Pro Val Gly Ala Val Phe
 1          5          10          15
Asn Pro Asp Thr Met Arg Met Glu Met Thr Asp Phe Ala Ala Val Ile
      20          25          30
Phe Asn Pro Val Ala Gln Ala Lys Phe Val His Thr Val Ser Ala Gly
      35          40          45
Tyr Val Ala Gly Ala Met Phe Val Met Ser Ile Ser Ala Trp Tyr Leu
      50          55          60
Leu Lys Gly Arg His Thr Asp Leu Ala Lys Arg Ser Met Ala Val Ala
65          70          75          80
Ala Ser Phe Gly Leu Ala Ser Ala Leu Ser Val Val Val Leu Gly Asp
      85          90          95
Glu Ser Gly Tyr Leu Thr Thr Glu His Gln Lys Met Lys Ile Ala Ala
      100          105          110
Met Glu Ser Met Trp His Thr Glu Pro Ala Pro Ala Ser Phe Asn Leu
      115          120          125
Ile Ala Leu Pro Asn Gln Ala Glu Arg Lys Asn Asp Phe Ala Ile Glu
      130          135          140
Ile Pro Tyr Val Met Xaa Leu Ile Gly Thr Arg
145          150          155

```

<210> 715  
<211> 354  
<212> DNA  
<213> Homo sapiens

<400> 715  
nnaccggtgg atgccaacga atatcgtggc gagctgaaag tcggcgccat caccaccgcc  
60  
cagaccggcc tgctgcctca ggcactgggtg cgtttgccgc aggcagcgcc gacgggtggag  
120  
tgcaagttgg taccgggggt ttccctggag ttgctcagcc aggtggacgc aggcgagctg  
180  
gactcggcga tcatcattcg cccgcccttt gatttgccca aggagttgca cgtacaggta  
240  
ctgcgcaagg agccgtttgt gttgatcgtg ccccgaggcg tcgggggtga tgaccggtg  
300  
caactgctcg aagctcatcc ccacgtgcgc tacgaccgag cttcgtttgg cggg  
354

<210> 716  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 716  
Xaa Pro Val Asp Ala Asn Glu Tyr Arg Gly Glu Leu Lys Val Gly Ala  
1 5 10 15  
Ile Thr Thr Ala Gln Thr Gly Leu Leu Pro Gln Ala Leu Val Arg Leu  
20 25 30  
Arg Gln Ala Ala Pro Thr Val Glu Cys Lys Leu Val Pro Gly Val Ser  
35 40 45  
Leu Glu Leu Leu Ser Gln Val Asp Ala Gly Glu Leu Asp Ser Ala Ile  
50 55 60  
Ile Ile Arg Pro Pro Phe Asp Leu Pro Lys Glu Leu His Val Gln Val  
65 70 75 80  
Leu Arg Lys Glu Pro Phe Val Leu Ile Val Pro Gln Ala Val Gly Gly  
85 90 95  
Asp Asp Pro Leu Gln Leu Leu Glu Ala His Pro His Val Arg Tyr Asp  
100 105 110  
Arg Ala Ser Phe Gly Gly  
115

<210> 717  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 717  
acgcgtatct ttccggtaaa cctactaatt ttccattcaa cgctcgacgc ccaggtaaag  
60  
ccgttaagtc atctaaatag gccattctgt ggctctccat cagtaagaac caaatccata  
120  
ggagaagttg agcggatagt aatgcatcaa attgatgctg agaaaccgaa aaatgggaca  
180

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<210> 718
<211> 130
<212> PRT
<213> Homo sapiens
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<210> 719
<211> 685
<212> DNA
<213> Homo sapiens
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806

agaacgcagc gactttgcgt taaatccaag ctcaaacc tcttgctcca caggcctgag  
 480  
 cataaaaagg tattctgcga cgggaaatgt aaagtctgag cttaggtgca gagtaccgcc  
 540  
 atcgatcagt gtctgatact gcttgccgc gacttctttg ccgagcaatg ggtatagcgt  
 600  
 tttaaccaa gtggaagcag tcgtttgctc accctggcga ttccggcgag ttagggacat  
 660  
 gaccacgtca tcgatgggat ttgac  
 685

<210> 720  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 720  
 Met Ser Leu Thr Arg Arg Asn Arg Gln Gly Glu Gln Thr Thr Ala Ser  
 1 5 10 15  
 Thr Trp Leu Lys Thr Leu Tyr Pro Leu Leu Gly Lys Glu Val Ala Asp  
 20 25 30  
 Lys Gln Tyr Gln Thr Leu Ile Asp Gly Gly Thr Leu His Leu Ser Ser  
 35 40 45  
 Asp Phe Thr Phe Pro Val Ala Glu Tyr Leu Phe Met Leu Arg Pro Val  
 50 55 60  
 Glu Gln Glu Val Phe Glu Leu Gly Phe Asn Ala Lys Ser Leu Arg Ser  
 65 70 75 80  
 Gly Val Val Glu Gly Val Leu Ala Gly Ser Arg Ala Ala Leu Ala Gly  
 85 90 95  
 Leu Gln Asn Gly Asp Val Ile Gln His Phe Ser Arg Val Ser Val Ala  
 100 105 110  
 Leu Met Asp Ser Gln Lys Thr Val Ser Phe Ser Gly Thr Arg Val Gly  
 115 120 125  
 Gln Asp Lys Glu Ile Lys Gly Glu Phe Arg Pro Arg Ser Phe Asp Lys  
 130 135 140  
 Val Cys Ser Phe Gln Ala Val Arg Val Asp His Ala Thr Ala Phe Ala  
 145 150 155 160  
 Arg

<210> 721  
 <211> 579  
 <212> DNA  
 <213> Homo sapiens

<400> 721  
 aagcttggga tcagggtgtg gcagtgtggc gggagtgtgg aggtcctgcc ctgctcacgg  
 60  
 attgccaca ttgagcgagc ccacaagccc tacacagagg acctcaccgc ccatgtccgc  
 120  
 aggaacgctc tcagggtggc tgaagtctgg atggatgaat ttaaaagcca cgtctactgg  
 180  
 catggaacat accaggagga ctcaggaatt gacattgggg acatcactgc aaggaaggct  
 240

ctcaggaaac agctgcagtg caagaccttc cgggtggtacc tggtcagcgt gtacccagag  
 300  
 atgaggatgt actccgacat cattgcctat ggagtgtctc agaattctct gaagactgat  
 360  
 ttgtgtcttg accaggggccc agatacagag aatgtcccca tcatgtacat ctgccatggg  
 420  
 atgacgcctc agaacgtgta ctacacgagc agtcagcaga tccatgtggg cattctgagc  
 480  
 cccaccgtgg atgatgatga caaccgatgc ctggtggacg tcaacagccg gccccggctc  
 540  
 atcgaatgca gctacgcca agccaagagg atgaagctt  
 579

<210> 722  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 722  
 Lys Leu Gly Ile Arg Val Trp Gln Cys Gly Gly Ser Val Glu Val Leu  
 1 5 10 15  
 Pro Cys Ser Arg Ile Ala His Ile Glu Arg Ala His Lys Pro Tyr Thr  
 20 25 30  
 Glu Asp Leu Thr Ala His Val Arg Arg Asn Ala Leu Arg Val Ala Glu  
 35 40 45  
 Val Trp Met Asp Glu Phe Lys Ser His Val Tyr Trp His Gly Thr Tyr  
 50 55 60  
 Gln Glu Asp Ser Gly Ile Asp Ile Gly Asp Ile Thr Ala Arg Lys Ala  
 65 70 75 80  
 Leu Arg Lys Gln Leu Gln Cys Lys Thr Phe Arg Trp Tyr Leu Val Ser  
 85 90 95  
 Val Tyr Pro Glu Met Arg Met Tyr Ser Asp Ile Ile Ala Tyr Gly Val  
 100 105 110  
 Leu Gln Asn Ser Leu Lys Thr Asp Leu Cys Leu Asp Gln Gly Pro Asp  
 115 120 125  
 Thr Glu Asn Val Pro Ile Met Tyr Ile Cys His Gly Met Thr Pro Gln  
 130 135 140  
 Asn Val Tyr Tyr Thr Ser Ser Gln Gln Ile His Val Gly Ile Leu Ser  
 145 150 155 160  
 Pro Thr Val Asp Asp Asp Asp Asn Arg Cys Leu Val Asp Val Asn Ser  
 165 170 175  
 Arg Pro Arg Leu Ile Glu Cys Ser Tyr Ala Lys Ala Lys Arg Met Lys  
 180 185 190  
 Leu

<210> 723  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 723  
 acgcgtcctc ttacgctcag ttttgacaat gcgtgctggc agccaaccga agccgtaaaa  
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ctcaacgaaa tgctctcgct taaaccgtgc gaaggaaccc caccgcaatg gcgcttattc  
 120  
 cgcggaagggg attaccaaatt gcgcattgat acgcgctccg gaacgcctac gctgatgctt  
 180  
 accgtacaaa gtgtaaccga caaacctggt acggacgtca ctcgacaatg tcctaaatgg  
 240  
 gacggcaagc ccctcaccct tgacgtaacg aatacattcc cggaaggctc cgtcgtagca  
 300  
 gacttctaca gcaagcaaac cgctatgggt cagcaaggta aaatcacact tcagcctgcc  
 360  
 gctaacagca atggcctgct gctg  
 384

<210> 724

<211> 128

<212> PRT

<213> Homo sapiens

<400> 724

Thr	Arg	Pro	Leu	Thr	Leu	Ser	Phe	Asp	Asn	Ala	Cys	Trp	Gln	Pro	Thr
1				5					10					15	
Glu	Ala	Val	Lys	Leu	Asn	Glu	Met	Leu	Ser	Leu	Lys	Pro	Cys	Glu	Gly
			20					25					30		
Thr	Pro	Pro	Gln	Trp	Arg	Leu	Phe	Arg	Glu	Gly	Asp	Tyr	Gln	Met	Arg
		35					40					45			
Ile	Asp	Thr	Arg	Ser	Gly	Thr	Pro	Thr	Leu	Met	Leu	Thr	Val	Gln	Ser
	50					55					60				
Val	Thr	Asp	Lys	Pro	Val	Thr	Asp	Val	Thr	Arg	Gln	Cys	Pro	Lys	Trp
65					70					75				80	
Asp	Gly	Lys	Pro	Leu	Thr	Leu	Asp	Val	Thr	Asn	Thr	Phe	Pro	Glu	Gly
				85						90				95	
Ser	Val	Val	Arg	Asp	Phe	Tyr	Ser	Lys	Gln	Thr	Ala	Met	Val	Gln	Gln
			100					105					110		
Gly	Lys	Ile	Thr	Leu	Gln	Pro	Ala	Ala	Asn	Ser	Asn	Gly	Leu	Leu	Leu
		115					120						125		

<210> 725

<211> 521

<212> DNA

<213> Homo sapiens

<400> 725

tcattgacttg ctttatttgca gtggtctgga actgttggat ggaacgaatt ttattctagag  
 60  
 cctgggtgaac agcttcccag gtgtgcattt agggcctcct agggatcatc aaagttttta  
 120  
 gaaaataggt ttccttcttc cacaggcatg gagaaggaag gaaattttgc actggccttt  
 180  
 gggaagctga agaagagctg gggggaggct tgttctgaca aaatagtgac tctctccctg  
 240  
 cttgaaatgt cccacagaag gctgtttctg gttcacattt gccctctag gtcactccc  
 300  
 tccccctcat cctgctcact gccagagaga ctatgctggg agtgggtgcat cgggtgtctc  
 360

caggcccttt taggetcaag gtgttcattc cctggtcctt tccctgccat gtctttgttc  
 420  
 cttcctccct ccttcccatc ccagcagcca cctcctcctt tccaccagac ctgggaacca  
 480  
 tcatcccaac cacaatcacc ccgtggttct attacacgcg t  
 521

<210> 726

<211> 124

<212> PRT

<213> Homo sapiens

<400> 726

Met	Glu	Lys	Glu	Gly	Asn	Phe	Ala	Leu	Ala	Phe	Gly	Lys	Leu	Lys	Lys
1				5					10					15	
Ser	Trp	Gly	Glu	Ala	Cys	Ser	Asp	Lys	Ile	Val	Thr	Leu	Ser	Leu	Leu
		20						25					30		
Glu	Met	Ser	His	Arg	Arg	Leu	Phe	Leu	Val	His	Ile	Cys	Pro	Ser	Arg
		35					40					45			
Ser	Thr	Pro	Ser	Pro	Ser	Ser	Cys	Ser	Leu	Pro	Glu	Arg	Leu	Cys	Trp
		50				55					60				
Glu	Trp	Cys	Ile	Gly	Gly	Leu	Gln	Ala	Leu	Leu	Gly	Ser	Arg	Cys	Ser
65					70					75				80	
Phe	Pro	Gly	Ser	Phe	Pro	Ala	Met	Ser	Leu	Phe	Leu	Pro	Pro	Ser	Phe
				85					90					95	
Pro	Ser	Gln	Gln	Pro	Pro	Ser	Ser	Phe	His	Gln	Thr	Trp	Glu	Pro	Ser
			100					105					110		
Ser	Gln	Pro	Gln	Ser	Pro	Arg	Gly	Ser	Ile	Thr	Arg				
			115					120							

<210> 727

<211> 629

<212> DNA

<213> Homo sapiens

<400> 727

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 60  
 tctgttgctt gacggcacgg tggctcagga ctcgatctcg ggaaccttgg cgactcggcg  
 120  
 tgccattatc gacgctggtg agttgaaggc tccgacgcat cgggcgtttg cgtcaatcag  
 180  
 tgccgcccgc cagaggttc aaggagaact cgaatgaate cgaatgacta cctggtgctc  
 240  
 tcggcgatct tggtcgctat cggcatcgtg ggcttcctga cgaggcgtaa tgccctggtg  
 300  
 gcctttatgt cggtaggagt gatgctcaac gccgcgaacc tggcgctggt gactttcgct  
 360  
 cactgtacac gctctctcga cggacaggtc ggggttttct tcgtgatgat cgtggcagcc  
 420  
 gctgaggtgg ttgtcggttt ggcgatcctc gtcactatct tccgttcccg tcgcaccact  
 480  
 tcggtggacg acaccaacct gctgaagttc tgaggagggt accgtgactg tcttggaaac  
 540



cggcttggtc aacgtggcct ggctcatgat tgcggtgcca ctggtggtg ccgcgctgct  
 600  
 attggtgctg ggacgccga gcgacgcgt  
 629

<210> 728  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 728  
 Met Asn Pro Asn Asp Tyr Leu Val Leu Ser Ala Ile Leu Phe Ala Ile  
 1 5 10 15  
 Gly Ile Val Gly Phe Leu Thr Arg Arg Asn Ala Leu Val Ala Phe Met  
 20 25 30  
 Ser Val Glu Leu Met Leu Asn Ala Ala Asn Leu Ala Leu Val Thr Phe  
 35 40 45  
 Ala His Val His Gly Ser Leu Asp Gly Gln Val Gly Val Phe Phe Val  
 50 55 60  
 Met Ile Val Ala Ala Ala Glu Val Val Val Gly Leu Ala Ile Ile Val  
 65 70 75 80  
 Thr Ile Phe Arg Ser Arg Arg Thr Thr Ser Val Asp Asp Thr Asn Leu  
 85 90 95  
 Leu Lys Phe

<210> 729  
 <211> 4716  
 <212> DNA  
 <213> Homo sapiens

<400> 729  
 nnaggagaga agaaattgaa aagcaggcac ttgagaagtc taagagaagc ttaagacgt  
 60  
 ttaaggaaat gctgcaggac agggaaatccc aaaatcaaaa gtctacagtt ccgtcaagaa  
 120  
 ggagaatgta ttcttttgat gatgtgctgg aggaaggaaa gcgacccccct acaatgactg  
 180  
 tgtcagaagc aagttaccag agtgagagag tagaagagaa gggagcaact tattcttcag  
 240  
 aaattcccaa agaagattct accacttttg caaaaagaga ggaccctgtt aacaactgaa  
 300  
 attcagcttc cttctcaaag tctgtggaa gaacaaagcc cagcctcttt gtcttctctg  
 360  
 cgttcacgga gcacacaaat ggaatcaact cgtgtttcag cttctctccc cagaagttac  
 420  
 cggaaaactg atacagtcag gttaacatct gtggtcacac caagaccctt tggctctcag  
 480  
 acaaggggaa tctcatcact cccagatct tacacgatgg atgatgcttg gaagtataat  
 540  
 ggagatgttg aagacattaa gagaactcca aacaatgttg tcagcaccct tgcaccaagc  
 600  
 ccggacgcaa gccaaactggc ttcaagctta tctagccaga aagaggtagc agcaacagaa  
 660

gaagatgtga caaggetgcc ctctcctaca tcccccttct catctctttc ccaagaccag  
720  
gctgccactt ctaaagccac attgtcttcc acatctgggc ttgatttaat gtctgaatct  
780  
ggagaagggg aaatctcccc acaaagagaa gtctcaagat cccaggatca gttcagtgat  
840  
atgagaatca gcataaacca gacgcctggg aagagtcttg actttggggt tacaataaaa  
900  
tgggatattc ctgggatctt cgtagcatca gttgaagcag gtagcccagc agaattttct  
960  
cagctacaag tagatgatga aattattgct attaacaaca ccaagttttc atataacgat  
1020  
tcaaaagagt gggaggaagc catggctaag gctcaagaaa ctggacacct agtgatggat  
1080  
gtgaggcgct atggaaaggc tgggtcacct gaaacaaagt ggattgatgc aacttctgga  
1140  
atttacaact cagaaaaatc ttcaaacta tctgtaacaa ctgattttct cgaaagcctt  
1200  
cagagttcta atattgaatc caaagaaatc aatggaattc atgatgaaag caatgctttt  
1260  
gaatcaaaag catctgaatc catttctttg aaaaacttaa aaaggcgatc acaatttttt  
1320  
gaacaaggaa gctctgattc ggtggttcct gatcttccag ttccaacct cagtgcctccg  
1380  
agtcgctggg tgtgggatca agaggaggag cggaagcggc aggagagggt gcagaaggag  
1440  
caggaccgcc tactgcagga aaaatatcaa cgtgagcagg agaaactgag ggaagagtgg  
1500  
caaagggcca aacaggaggc agagagagag aattccaagt acttgatga ggaactgatg  
1560  
gtcctaagct caaacagcat gtctctgacc acacgggagc cctctcttgc cacctgggaa  
1620  
gtacctgga gtgaagggtc caagtcttca gacagagaag gaacccgagc aggagaagag  
1680  
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&lt;211&gt; 797

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 730

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<212> PRT

<213> Homo sapiens

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Thr	Met	Gly	Ser	Ala	Glu	Met	Cys	Arg	Asp	Leu	Ala	Pro	Glu	Val	Glu
			130				135				140				
Lys	Leu	Leu	Leu	Gln	Pro	Ser	Pro	Tyr	Val	Arg	Lys	Lys	Ala	Ile	Leu
145					150					155				160	
Thr	Ala	Val	His	Met	Ile	Arg	Lys	Val	Pro	Glu	Leu	Ser	Ser	Val	Phe
				165					170					175	
Leu	Pro	Pro	Cys	Ala	Gln	Leu	Leu	His	Glu	Arg	His	His	Gly	Ile	Leu
			180					185					190		
Leu	Gly	Thr	Ile	Thr	Leu	Ile	Thr	Glu	Leu	Cys	Glu	Arg	Ser	Pro	Ala
		195					200					205			
Ala	Leu	Arg	His	Phe	Arg	Lys	Val	Val	Pro	Gln	Leu	Val	His	Ile	Leu
			210				215					220			
Arg	Thr	Leu	Val	Thr	Met	Gly	Tyr	Ser	Thr	Glu	His	Ser	Ile	Ser	Gly
225					230					235				240	
Val	Ser	Asp	Pro	Phe	Leu	Gln	Val	Gln	Ile	Leu	Arg	Leu	Leu	Arg	Ile
				245					250					255	
Leu	Gly	Arg	Asn	His	Glu	Glu	Ser	Ser	Glu	Thr	Met	Asn	Asp	Leu	Leu
				260				265					270		
Ala	Gln	Val	Ala	Thr	Asn	Thr	Asp	Thr	Ser	Arg	Asn	Ala	Gly	Asn	Ala

```

      275              280              285
Val Leu Phe Glu Thr Val Leu Thr Ile Met Asp Ile Arg Ser Ala Ala
  290              295              300
Gly Leu Arg Val Leu Ala Val Asn Ile Leu Gly Arg Phe Leu Leu Asn
  305              310              315              320
Ser Asp Arg Asn Ile Arg Tyr Val Ala Leu Thr Ser Leu Leu Arg Leu
      325              330              335
Val Gln Ser Asp His Ser Ala Val Gln Arg His Arg Pro Thr Val Val
      340              345              350
Glu Cys Leu Arg Glu Thr Asp Ala Ser Leu Ser Arg
  355              360

```

<210> 735  
 <211> 597  
 <212> DNA  
 <213> Homo sapiens

```

<400> 735
gtcgactagc caaaccgccc gggaaagtct tgtaccaccg atcctggttt atgcggatct
60
catcgccacc atggactcgc gcaatctgga aaccgccaac cttattccag aaaaaataat
120
tgcttggtgt cctcgatccc gctctgaccg cccactggac cgctcaaccc aggacatcct
180
cagtgccatc cagcagctgg ctgcaccgct ggcactaccc atcttcgtgg tgggtgccac
240
agcgcgcgac attctgctga cacacgtgtt cggatcagag accggacgtg ccacgctcga
300
cgtggatttc gccgttgccg tagaacattg gccgcagttc gaaaacatca agcagcacct
360
gctagccaac gaccatttcg actctgccgc cagcatcacc catcgactgc tctatcgcac
420
gagcgacaac acgatcgcgc ggccaatcga tctcatccca ttcggcggca tcgaacagcc
480
gccagccacc atcaaattgc cgcgcgacat ggctgtcatg atgaatgttg ctggctacgc
540
agatgcctgg cgggcccag tcgaagtaga gtttgtgcc gggcgcagca tacgcgt
597

```

<210> 736  
 <211> 175  
 <212> PRT  
 <213> Homo sapiens

```

<400> 736
Met Asp Ser Arg Asn Leu Glu Thr Ala Asn Leu Ile Pro Glu Lys Ile
  1              5              10              15
Ile Ala Trp Cys Pro Arg Ser Arg Ser Asp Arg Pro Leu Asp Arg Ser
      20              25              30
Thr Gln Asp Ile Leu Ser Ala Ile His Asp Val Ala Ala Pro Leu Ala
      35              40              45
Leu Pro Ile Phe Val Val Gly Ala Thr Ala Arg Asp Ile Leu Leu Thr
      50              55              60
His Val Phe Gly Ile Glu Thr Gly Arg Ala Thr Leu Asp Val Asp Phe

```

```

65          70          75          80
Ala Val Ala Val Glu His Trp Pro Gln Phe Glu Asn Ile Lys Gln His
      85          90          95
Leu Leu Ala Asn Asp His Phe Asp Ser Ala Ala Ser Ile Thr His Arg
      100          105          110
Leu Leu Tyr Arg Thr Ser Asp Asn Thr Ile Ala Arg Pro Ile Asp Leu
      115          120          125
Ile Pro Phe Gly Gly Ile Glu Gln Pro Pro Ala Thr Ile Lys Trp Pro
      130          135          140
Pro Asp Met Ala Val Met Met Asn Val Ala Gly Tyr Ala Asp Ala Trp
145          150          155          160
Arg Ala Ala Val Glu Val Glu Phe Val Pro Gly Arg Ser Ile Arg
      165          170          175

```

&lt;210&gt; 737

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 737

```

ntgcgcctgg ccaattccgg cgccatcctc gggcacgatac tggggaaaac ctccatgggtg
60
cgcgccgggca tcgttgggta cggatacgat cccaaccctc acgccgaccg tgccgaccta
120
caccctgccc tgcctcggat cagccacgtc accttcgtta aaactgtcag tgtgggggat
180
accatcggtt acggcagaac atggacagcc agcgaaacga caaaaatcgc caccgtccca
240
gtcggttacg ccgacggact gtcccagga ctgtcaaata aaggacacgt tctcattaga
300
gggtccgttc atcccatcgt cggtcggatac tgcattggacc aattcatggt cgatcttggc
360
cccgattcga acgtcacggt gggagatgag gtggtgctca ttggaacca ggaggacgaa
420
actctgaccg ctgatgacat ggcgaactc ctcggaacca ttagctacga gatcacttgc
480
gccatttcca aacgcgt
497

```

&lt;210&gt; 738

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 738

```

Xaa Arg Leu Ala Asn Ser Gly Ala Ile Leu Gly His Asp Leu Gly Lys
1          5          10          15
Thr Ser Met Val Arg Ala Gly Ile Val Gly Tyr Gly Tyr Asp Pro Asn
      20          25          30
Pro His Ala Asp Arg Ala Asp Leu His Pro Ala Leu Ser Trp Ile Ser
      35          40          45
His Val Thr Phe Val Lys Thr Val Ser Val Gly Asp Thr Ile Gly Tyr
      50          55          60
Gly Arg Thr Trp Thr Ala Ser Glu Thr Thr Lys Ile Ala Thr Val Pro

```

```

65          70          75          80
Val Gly Tyr Ala Asp Gly Leu Ser Arg Gly Leu Ser Asn Lys Gly His
          85          90          95
Val Leu Ile Arg Gly Ser Val His Pro Ile Val Gly Arg Ile Cys Met
          100          105          110
Asp Gln Phe Met Val Asp Leu Gly Pro Asp Ser Asn Val Thr Val Gly
          115          120          125
Asp Glu Val Val Leu Ile Gly Thr Gln Glu Asp Glu Thr Leu Thr Ala
          130          135          140
Asp Asp Met Ala Glu Leu Leu Gly Thr Ile Ser Tyr Glu Ile Thr Cys
145          150          155          160
Ala Ile Ser Lys Arg
          165

```

<210> 739  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

```

<400> 739
cggtgctggg aagagcgggc gcacgcgctc aagaccaagg aaaagctggc acagaccgcc
60
acggcctcat cagcagctgt gggctcaggc cccctccccg aggcggagca ggcgtggccg
120
cagagcagcg gggaggagga gctgcagctc cagctggccc tggccatgag caaggaggag
180
gccgaccagc ccccgctctg cggccccgag gacgacgccc agctccagct ggcccttagt
240
ttgagccgag aagagcatga taaggaggag cggatccgct gcggggatga cctgcggctg
300
cagatggcaa tcgaggagag caagagggag actgggggca aggaggagtc gtcctcatg
360
gaccttgctg acgtcttcac gccccagct cctgccccga ccacagaccc ctggggggggc
420
ccagcaccca tggtgct
438

```

<210> 740  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

```

<400> 740
Arg Leu Arg Glu Glu Arg Ala His Ala Leu Lys Thr Lys Glu Lys Leu
1          5          10          15
Ala Gln Thr Ala Thr Ala Ser Ser Ala Ala Val Gly Ser Gly Pro Pro
          20          25          30
Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu Glu Leu
          35          40          45
Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp Gln Pro
          50          55          60
Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln Leu Gln Leu Ala Leu Ser
65          70          75          80
Leu Ser Arg Glu Glu His Asp Lys Glu Glu Arg Ile Arg Arg Gly Asp

```



```

      35              40              45
Asp Glu His Pro Ala Glu Ile Ile Asn Thr Asp Ser Met Val Val Tyr
  50              55              60
Arg Gly Met Asp Ile Gly Thr Ala Thr Pro Thr Leu Arg Glu Gln Arg
  65              70              75              80
Thr Val Val His His Leu Val Ser Ile Leu Asp Val Thr Val Pro Ser
      85              90              95
Ser Leu Val Leu Met Gln Thr Leu Ala Arg Asp Ala Val Glu Asp Cys
      100              105              110
Leu Ser Arg Gly Val Ile Pro Val Leu Val Gly Gly Ser Ala Leu Tyr
      115              120              125
Thr Lys Ala Ile Ile Asp Glu Met Ser Ile Pro Pro Thr Asp Pro Glu
      130              135              140
Val Arg Ala Arg Trp Gln Glu Lys Leu Asp Ala Glu Gly Pro Arg Val
  145              150              155              160
Leu His Asp Glu Leu Ala Arg Arg Asp Pro Lys Ala Ala Glu Ser Ile
      165              170              175
Leu Pro Gly Asn Gly Arg Arg Ile Val Ser Cys Pro Arg Ser Leu Leu
      180              185              190
Thr Leu Thr Gly Ser Phe Thr Ala Thr Asp Pro Arg Arg Asp Pro Pro
      195              200              205
Leu Ala Lys Thr Val Gln Met Gly Leu Glu Leu Ser Arg Lys Asp Ile
      210              215              220
Asp Gln Arg Ile Ala Asp Arg Val Asp Gln Met Trp Ala Tyr Gly Phe
  225              230              235              240
Val Asp

```

&lt;210&gt; 743

&lt;211&gt; 430

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 743

```

naaaaaagtg atggtttcgg atctgtggcc agtcgtcttg caagaaatca ttatgacgtg
  60
gatgagggca acagcancat tcatgttaat caagacattg cgcgcagaac agggacggga
  120
aagctatttg tacgagtgtg cccggcgcac gtgtactcag aggagcccga tggcactatt
  180
tccgtggagt acgcagcgtg tctggagtgt ggcacttgct tggcggttgc tgcgccaggg
  240
tcgcttgaat ggcactatcc cgcaggtgca atgggtatct cgttcagaga aggatgaagt
  300
ccttgtgggc gactgtaaag cgacatggcc gtcgctcggt aggaggaatt gtggtgtccg
  360
caccaaatag tgctcaggat gaagttcgtc atggaaatcc ggctccaacc gtttcggggag
  420
ctggtcgcga
  430

```

&lt;210&gt; 744

&lt;211&gt; 98

&lt;212&gt; PRT

<213> Homo sapiens

<400> 744

```

Xaa Lys Ser Asp Gly Phe Gly Ser Val Ala Ser Arg Leu Ala Arg Asn
 1             5             10             15
His Tyr Asp Val Asp Glu Gly Asn Ser Xaa Ile His Val Asn Gln Asp
      20             25             30
Ile Ala Arg Arg Thr Gly Thr Gly Lys Leu Leu Val Arg Val Cys Pro
      35             40             45
Ala His Val Tyr Ser Glu Glu Pro Asp Gly Thr Ile Ser Val Glu Tyr
      50             55             60
Ala Ala Cys Leu Glu Cys Gly Thr Cys Leu Ala Val Ala Ala Pro Gly
      65             70             75             80
Ser Leu Glu Trp His Tyr Pro Ala Gly Ala Met Gly Ile Ser Phe Arg
      85             90             95
Glu Gly

```

<210> 745

<211> 362

<212> DNA

<213> Homo sapiens

<400> 745

```

cggccgattg aagcgctcgt gcggtttgag tcggtgatgg atgcggtgga cggtgcttcg
60
gcgtcgtggt ggcgcattggc gcggtatttc atcgccgagc ttgaacgcag cagcgagttg
120
tatgagcagg cggcgctttac ccgcgatctg gaaagctcgc tgatcaaggg cctgacctc
180
gcccagccga acaactactc cgaagaactg cgcgacgtac tcggcgtgaa gctgccgcat
240
tacttgattc gcgcgcggca gtacatccac gacaacgccc gcgaagccgt gcatctggaa
300
gacctggaag ccgctgccgg ggtatcgagg ttcaagttgt tcgatgcggt tcgcaaatac
360
tt
362

```

<210> 746

<211> 108

<212> PRT

<213> Homo sapiens

<400> 746

```

Met Asp Ala Val Asp Gly Ala Ser Ala Ser Trp Trp Arg Met Ala Arg
 1             5             10             15
Tyr Phe Ile Ala Glu Leu Glu Arg Ser Ser Glu Leu Tyr Glu Gln Ala
      20             25             30
Ala Phe Thr Arg Asp Leu Glu Ser Ser Leu Ile Lys Gly Leu Ile Leu
      35             40             45
Ala Gln Pro Asn Asn Tyr Ser Glu Glu Leu Arg Asp Val Leu Gly Val
      50             55             60
Lys Leu Pro His Tyr Leu Ile Arg Ala Arg Gln Tyr Ile His Asp Asn

```



65                      70                      75                      80  
Ala Arg Glu Ala Val His Leu Glu Asp Leu Glu Thr Ala Ala Gly Val  
                              85                      90                      95  
Ser Arg Phe Lys Leu Phe Asp Ala Phe Arg Lys Tyr  
                              100                      105

```
<210> 747
<211> 416
<212> DNA
<213> Homo sapiens
```

```
<400> 747
nacgcgttga tcgccgcgca cegtttcatc ccgcaatcac ccgacatggc ggccattttt
60
ctgaatgccg atggcacgcc taaagccacc ggcacgtgct tcaagaacct agcgctggcc
120
gccgtgttca aacgtatcgc caaggaagga ccggacgcgc tgtaccacgg gccgattgcc
180
gacgagatcg cgcgcaaggt tcagggcaac cgcaatgcgg gcagcctgtc gcaagcggac
240
ctcaaggctt acaccgccaa ggaacgcacg ccgctgtgca ccgactacaa gcaatatcag
300
gtgtgcggca tgccaccgcc gtcgtcagcg gggattgcgg tggcgcagat cctcggcacg
360
ctgcaggccg tggaagcccg cgacccacgc ctggccatcg ccccatgaa accggt
416
```

```
<210> 748
<211> 138
<212> PRT
<213> Homo sapiens
```

```
<400> 748
Xaa Ala Leu Ile Ala Ala Asp Arg Phe Ile Pro Gln Ser Pro Asp Met
 1             5            10           15
Ala Ala Tyr Phe Leu Asn Ala Asp Gly Thr Pro Lys Ala Thr Gly Thr
      20           25          30
Leu Leu Lys Asn Pro Ala Leu Ala Val Phe Lys Arg Ile Ala Lys
    35         40        45
Glu Gly Pro Asp Ala Leu Tyr His Gly Pro Ile Ala Asp Glu Ile Ala
   50       55       60
Arg Lys Val Gln Gly Asn Arg Asn Ala Gly Ser Leu Ser Gln Ala Asp
65       70       75       80
Leu Lys Ala Tyr Thr Ala Lys Glu Arg Thr Pro Leu Cys Thr Asp Tyr
     85           90           95
Lys Gln Tyr Gln Val Cys Gly Met Pro Pro Pro Ser Ser Gly Gly Ile
    100        105        110
Ala Val Ala Gln Ile Leu Gly Thr Leu Gln Ala Val Glu Ala Arg Asp
    115        120        125
Pro Arg Leu Ala Ile Ala Pro Met Lys Pro
 130           135
```

<210> 749  
<211> 1211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 749

nagtcctaga cgccagaccc gctcagaccc tcctgccagg tgacagccgc caagatgggg  
60  
tcttgggccc tgetgtggcc tcccctgctg ttcaccgggc tgctcgtecg acccccgggg  
120  
accatggccc agggccagta ctgctctgtg aacaaggaca tctttgaagt agaggagaac  
180  
acaaatgtca ccgagccgct ggtggacatc cacgtcccgg agggccagga ggtgaccctc  
240  
ggagccttgt ccacccctt tgcatttcgg atccaggga accagctgtt tctcaacgtg  
300  
actcctgatt acgaggagaa gtcactgctt gaggtcagc tgctgtgtca gagcggaggc  
360  
acattggtga ccagctaaag ggtgttcgtg tcagtgtgag acgtcaatga caatgcccc  
420  
gaattccctt ttaagaccaa ggagataagg gtggaggagg acacgaaagt gaactccacc  
480  
gtcatccccc agacgcaact gcaggctgag gaccgagaca aggacgacat tctgttctac  
540  
accctccagg aaatgacagc aggtgccagt gactacttct ccttggtgag tgtaaaccgt  
600  
cccgcctga ggctggaccg gccctggac ttctacgagc ggccgaacat gaccttctgg  
660  
ctgctgggtgc gggacactcc gggggagaat gtggaaccca gccacactgc caccgccaca  
720  
ctagtgtga acgtggtgcc gcccgacctg cggccccgt ggttcctgcc ctgcaccttc  
780  
tcagatggct acgtctgcat tcaagctcag taccacgggg ctgtcccccac ggggcacata  
840  
ctgccatctc ccttcgtcct gcgtcccga cccatctacg ctgaggacgg agaccgcggc  
900  
atcaaccagc ccacatctca cagcatcttt aggggaaacg tgaatggtac attcatcatc  
960  
caccagact cgggcaacct caccgtggcc aggagtgtcc ccagcccat gaccttcctt  
1020  
ctgctggtga agggccaaca ggccgacctt gcccgctact cagtgaacca ggtcaccgtg  
1080  
gagggtgtg gctgcggccg ggagcccgcc ccgttcccc cagagcctgt atcgtggcac  
1140  
cgtggcgctt ggcgctggag cgggcgttgt ggtcaaggat gcagctgccc cttttcagcc  
1200  
tctgaggatc c  
1211

&lt;210&gt; 750

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 750

Met Gly Ser Trp Ala Leu Leu Trp Pro Pro Leu Leu Phe Thr Gly Leu

1	5	10	15
Leu Val Arg Pro Pro Gly Thr Met Ala Gln Ala Gln Tyr Cys Ser Val			
20	25	30	
Asn Lys Asp Ile Phe Glu Val Glu Glu Asn Thr Asn Val Thr Glu Pro			
35	40	45	
Leu Val Asp Ile His Val Pro Glu Gly Gln Glu Val Thr Leu Gly Ala			
50	55	60	
Leu Ser Thr Pro Phe Ala Phe Arg Ile Gln Gly Asn Gln Leu Phe Leu			
65	70	75	80
Asn Val Thr Pro Asp Tyr Glu Glu Lys Ser Leu Leu Glu Ala Gln Leu			
85	90	95	
Leu Cys Gln Ser Gly Gly Thr Leu Val Thr Gln Leu Arg Val Phe Val			
100	105	110	
Ser Val Leu Asp Val Asn Asp Asn Ala Pro Glu Phe Pro Phe Lys Thr			
115	120	125	
Lys Glu Ile Arg Val Glu Glu Asp Thr Lys Val Asn Ser Thr Val Ile			
130	135	140	
Pro Glu Thr Gln Leu Gln Ala Glu Asp Arg Asp Lys Asp Asp Ile Leu			
145	150	155	160
Phe Tyr Thr Leu Gln Glu Met Thr Ala Gly Ala Ser Asp Tyr Phe Ser			
165	170	175	
Leu Val Ser Val Asn Arg Pro Ala Leu Arg Leu Asp Arg Pro Leu Asp			
180	185	190	
Phe Tyr Glu Arg Pro Asn Met Thr Phe Trp Leu Leu Val Arg Asp Thr			
195	200	205	
Pro Gly Glu Asn Val Glu Pro Ser His Thr Ala Thr Ala Thr Leu Val			
210	215	220	
Leu Asn Val Val Pro Ala Asp Leu Arg Pro Pro Trp Phe Leu Pro Cys			
225	230	235	240
Thr Phe Ser Asp Gly Tyr Val Cys Ile Gln Ala Gln Tyr His Gly Ala			
245	250	255	
Val Pro Thr Gly His Ile Leu Pro Ser Pro Leu Val Leu Arg Pro Gly			
260	265	270	
Pro Ile Tyr Ala Glu Asp Gly Asp Arg Gly Ile Asn Gln Pro Ile Ile			
275	280	285	
Tyr Ser Ile Phe Arg Gly Asn Val Asn Gly Thr Phe Ile Ile His Pro			
290	295	300	
Asp Ser Gly Asn Leu Thr Val Ala Arg Ser Val Pro Ser Pro Met Thr			
305	310	315	320
Phe Leu Leu Leu Val Lys Gly Gln Gln Ala Asp Leu Ala Arg Tyr Ser			
325	330	335	
Val Thr Gln Val Thr Val Glu Gly Cys Gly Cys Gly Arg Glu Pro Ala			
340	345	350	
Pro Leu Pro Pro Glu Pro Val Ser Trp His Arg Gly Ala Trp Arg Trp			
355	360	365	
Ser Gly Arg Cys Gly Gln Gly Cys Ser Cys Pro Phe Ser Ala Ser Glu			
370	375	380	
Asp			
385			

&lt;210&gt; 751

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 751  
 cgcgctcgcg tcacgtcaca cgacatgagc gaggtcaaca tcgacgcggc gctggtggcg  
 60  
 gcaggcggcg ggctgtcgcg caccgaggag aagctcgctg agatgtcgaa cggctgcacg  
 120  
 tgctgcacgc tgcgcgacga cctgatgcag gaagtggcga gactggcggg cgaaggccgc  
 180  
 ttcgatgcgc tggtcacaga gagcaccggc gtgtccgagc cgatgccggt cgcgccacg  
 240  
 ttcgatttcc gtgaccagga cggcgtctcg ctccgccagc tcgcgcggct ggataccatg  
 300  
 gtcaccgtcg tcgacgcgcg gtccttcctg cgcgactacg gctcg  
 345

<210> 752  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 752  
 Arg Val Ala Val Ile Val Asn Asp Met Ser Glu Val Asn Ile Asp Ala  
 1 5 10 15  
 Ala Leu Val Ala Ala Gly Gly Gly Leu Ser Arg Thr Glu Glu Lys Leu  
 20 25 30  
 Val Glu Met Ser Asn Gly Cys Ile Cys Cys Thr Leu Arg Asp Asp Leu  
 35 40 45  
 Met Gln Glu Val Ala Arg Leu Ala Gly Glu Gly Arg Phe Asp Ala Leu  
 50 55 60  
 Val Ile Glu Ser Thr Gly Val Ser Glu Pro Met Pro Val Ala Ala Thr  
 65 70 75 80  
 Phe Asp Phe Arg Asp Gln Asp Gly Val Ser Leu Ala Asp Val Ala Arg  
 85 90 95  
 Leu Asp Thr Met Val Thr Val Val Asp Ala Ala Ser Phe Leu Arg Asp  
 100 105 110  
 Tyr Gly Ser  
 115

<210> 753  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 753  
 gcgcgccagt acgccaagac cgtccgcaag gaccgcaagg gcgaacggcg gcgtcggggc  
 60  
 gcgtcggact agtccacgat gcattcgaac cgcgccttcc gctttgccga tgatgtctcg  
 120  
 atgctcgatt tcgcggccaa gcgagccttt gcgcacatct tcgtgagcac gcccgagggg  
 180  
 cctatggtag cgcattgccc ggttacgccc ttcgacggag ccttcgcctt ccatgtcgcg  
 240  
 cgcggcaatc ggatcgcgcg gcacctggat ggcgcgacgc tgctgctcag catcagcgcg  
 300

accgacggct atatcagccc gagctgggtac gccgacccgc agggaccaca gt  
352

<210> 754

<211> 91

<212> PRT

<213> Homo sapiens

<400> 754

```
Met His Pro Asn Arg Ala Phe Arg Phe Ala Asp Asp Val Ser Met Leu
 1             5             10             15
Asp Phe Ala Ala Lys Arg Ala Phe Ala His Ile Phe Val Ser Thr Pro
      20             25             30
Glu Gly Pro Met Val Ala His Ala Pro Val Thr Pro Phe Asp Gly Ala
      35             40             45
Phe Arg Phe His Val Ala Arg Gly Asn Arg Ile Ala Arg His Leu Asp
      50             55             60
Gly Ala Thr Leu Leu Leu Ser Ile Ser Ala Thr Asp Gly Tyr Ile Ser
65             70             75             80
Pro Ser Trp Tyr Ala Asp Pro Gln Gly Pro Gln
      85             90
```

<210> 755

<211> 301

<212> DNA

<213> Homo sapiens

<400> 755

```
tgggatgcag ggtctttctt ctccaaggat ttcattcctg gagggagaaa agggccccag
60
ctgtctgcc tcaaaccggg ttgccgggct ggagctcctc ccaggcccggt gtgaggaaga
120
gcaaaggccg gcagggggctc gatgggacca gtcgctcgct caggcccgag aaaaccacac
180
agctgggggc tgtcaggatt ggaccagggt caggccggcc aggcgatggc gggaaaagca
240
ggcccaactct gcagacctca atgtctcagg tgcactgcag ggcaaccccg cctaccccg
300
g
301
```

<210> 756

<211> 99

<212> PRT

<213> Homo sapiens

<400> 756

```
Met Gln Gly Leu Ser Ser Pro Arg Ile Ser Phe Leu Glu Gly Glu Lys
 1             5             10             15
Gly Pro Ser Cys Leu Pro Ser Asn Arg Val Ala Gly Leu Glu Leu Leu
      20             25             30
Pro Gly Pro Cys Glu Glu Glu Gln Arg Pro Ala Gly Ala Arg Trp Asp
      35             40             45
Gln Ser Leu Ala Gln Ala Gln Glu Asn His Thr Ala Gly Gly Cys Gln
```

50                      55                      60  
 Asp Trp Thr Arg Val Arg Pro Ala Arg Arg Trp Arg Glu Lys Gln Ala  
 65                      70                      75                      80  
 His Ser Ala Asp Leu Asn Val Ser Gly Ala Leu Gln Gly Asn Pro Ala  
                     85                      90                      95  
 Tyr Pro Gly

<210> 757  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<400> 757  
 actgaggcga tcgccagagg ggtgggctg cgagggtgc tcaacatcca gttcgccctg  
 60  
 gtctccgatg ttctctacgt catcgaggcc aaccccaggg catcgcgcac agtccccctt  
 120  
 gtctcaaagg catccggcgt gcagctcgcc aaagcggcgg ccctcatcat gacaggggag  
 180  
 acgatcgct cgctcaggcg ctccggccac ctgcccaggg ccgacgcgc cgtcaccgat  
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 cccgatgacc cgatcgccgt caaggaggcg gtcctaccct tcaaacgatt ccgcaccacc  
 300  
 gagggacgcg t  
 311

<210> 758  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 758  
 Thr Glu Ala Ile Ala Arg Gly Val Gly Val Arg Gly Leu Leu Asn Ile  
 1                      5                      10                      15  
 Gln Phe Ala Leu Val Ser Asp Val Leu Tyr Val Ile Glu Ala Asn Pro  
                     20                      25                      30  
 Arg Ala Ser Arg Thr Val Pro Phe Val Ser Lys Ala Ser Gly Val Gln  
                     35                      40                      45  
 Leu Ala Lys Ala Ala Ala Leu Ile Met Thr Gly Glu Thr Ile Ala Ser  
                     50                      55                      60  
 Leu Arg Arg Ser Gly His Leu Pro Glu Ala Asp Ala Ala Val Thr Asp  
 65                      70                      75                      80  
 Pro Asp Asp Pro Ile Ala Val Lys Glu Ala Val Leu Pro Phe Lys Arg  
                     85                      90                      95  
 Phe Arg Thr Thr Glu Gly Arg  
                     100

<210> 759  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 759

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 attgccgagg gcaagaccta caccgcgaac tcgccgaaca tgtgggccat gttcgccgtc  
 120  
 gacgaaaaac tcggcatgct ctacctgccg atgggcaacc agaccccgga ccagttcggg  
 180  
 ggctaccgca cgctgcgtc ggaactgcac gctgccggcc tgacagcgct ggatatcgac  
 240  
 actggtaaag tgcgtgggca ctaccagttc acccaccatg acctgtggga catggacgtg  
 300  
 ggcgggccagc cgagcctgat cgacatcaag accgccgccg gcgtgaaaca agccgtgatg  
 360  
 gcctcgacca agcaaggcag catctacgg t  
 391

<210> 760

<211> 130

<212> PRT

<213> Homo sapiens

<400> 760

Val	His	Thr	Gly	Lys	Leu	Val	Trp	Asn	Trp	Asp	Ser	Gly	Asn	Pro	Asp
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Asp	Thr	Thr	Pro	Ile	Ala	Glu	Gly	Lys	Thr	Tyr	Thr	Arg	Asn	Ser	Pro
			20					25					30		
Asn	Met	Trp	Ser	Met	Phe	Ala	Val	Asp	Glu	Lys	Leu	Gly	Met	Leu	Tyr
	35						40					45			
Leu	Pro	Met	Gly	Asn	Gln	Thr	Pro	Asp	Gln	Phe	Gly	Gly	Tyr	Arg	Thr
	50				55					60					
Pro	Ala	Ser	Glu	Leu	His	Ala	Ala	Gly	Leu	Thr	Ala	Leu	Asp	Ile	Asp
65					70					75				80	
Thr	Gly	Lys	Val	Arg	Trp	His	Tyr	Gln	Phe	Thr	His	His	Asp	Leu	Trp
			85					90					95		
Asp	Met	Asp	Val	Gly	Gly	Gln	Pro	Ser	Leu	Ile	Asp	Ile	Lys	Thr	Ala
		100					105						110		
Ala	Gly	Val	Lys	Gln	Ala	Val	Met	Ala	Ser	Thr	Lys	Gln	Gly	Ser	Ile
	115					120						125			
Tyr	Ala														
	130														

<210> 761

<211> 324

<212> DNA

<213> Homo sapiens

<400> 761

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 120  
 tcaggtagct cctgccaag agggcccat ggttcctcgc ctaaggaagg cagggcgagg  
 180  
 cattgggagc cgttgacagc tgggctcagc tggggggagg ggtcagtttg ggagcaggtg  
 240

cagatttcag ggaggggggg gcctaaaggg aagtagggat cttggtaggc tgcaaaattt  
 300  
 tcctcccat ccccatcca caga  
 324

<210> 762  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 762  
 Met Gly Asp Gly Glu Glu Asn Phe Ala Ala Tyr Gln Asp Pro Tyr Phe  
 1 5 10 15  
 Pro Leu Gly Pro Pro Leu Pro Glu Ile Cys Thr Cys Ser Gln Thr Asp  
 20 25 30  
 Pro Ser Pro Gln Leu Ser Pro Ala Val Asn Gly Ser Gln Cys Pro Ala  
 35 40 45  
 Leu Pro Ser Leu Gly Glu Glu Pro Trp Gly Pro Leu Gly Gln Glu Val  
 50 55 60  
 Pro Asp Cys Pro Leu Ser Phe Ala Glu Lys Glu Leu Trp Gly Arg Glu  
 65 70 75 80  
 Gly Leu Ala Ser Pro Arg Arg Tyr Phe Leu Leu His Gln Gly Ser Lys  
 85 90 95  
 Lys Val Arg Pro Leu Trp Ala Tyr Leu  
 100 105

<210> 763  
 <211> 301  
 <212> DNA  
 <213> Homo sapiens

<400> 763  
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 tcctcgggcg tgtgtggaa gtggcgcca atatcgcat tactcgggc ggcaccgctg  
 120  
 ccgcggtggc cgccaccggc ttaccgagg ccaccggcg cctcggetgc ttctgctgg  
 180  
 gcgctgcctt gggcaccatt gccggcctgg ccatgagcaa cattggcgcg gacacagggc  
 240  
 tgaccaagat atgcaatgcc ttaacaacg ccttatttgc gccaccgtg catgcaaca  
 300  
 t  
 301

<210> 764  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 764  
 Met Phe Ala Cys Thr Val Gly Ala Asn Lys Ala Leu Leu Lys Ala Leu  
 1 5 10 15  
 His Ile Leu Val Ser Pro Val Ser Ala Pro Met Leu Leu Met Ala Arg



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      20      25      30
Pro Ala Met Val Pro Lys Ala Ala Pro Ser Arg Lys Gln Pro Arg Pro
      35      40      45
Pro Val Ala Ser Val Lys Pro Val Ala Ala Thr Ala Ala Val Ala
      50      55      60
Pro Ala Val Ile Ala Ile Leu Ala Ala Thr Ser Ser Thr Pro Pro Arg
65      70      75      80
Met Ser Ala Ile Ile Glu Val Trp Asp Ser Ala Ser Pro Ile Arg Ala
      85      90      95
Ala His Asn Ala
      100

```

<210> 765  
 <211> 831  
 <212> DNA  
 <213> Homo sapiens

```

<400> 765
ngcacactcc agcctctgtt cttctctctc ttgtgccttt gcccttacca cggttcctca
60
taacattgtt gttcctgtat ttaaggccct ataaacaggg agatgcgcca cctcatcagt
120
agcctccaga atcacaatca ccagctgaaa ggggaggtcc tgagatataa gcggaaattg
180
agagaagccc agtctgacct gaacaagaca cgcctgcgta gtggtagtgc cctcctgcag
240
tcccagtcta gtactgagga cccgaaggat gagcctgcgg agctaaaacc agattctggg
300
gacttatcct ccagtcctc agcttcaaag gcatttcagg aggatgccaa tgaaatcaag
360
tctaaacggg atgaagaaga acgagaacga gaaaggaggg agaaggagag ggaacgagaa
420
agagaacggg agaaggagaa ggagagagaa cgagagaagc agaagctaaa agagtcagaa
480
aaagagagag attctgctaa ggataaagag aaaggcaaac atgatgatgg acggaaaaag
540
gaagcagaaa ttatcaaaca attgaagatt gaactcaaga aggcacagga gagccaaaag
600
gagatgaaac tattgctgga tatgtaccgt tctgccccaa aggaacagag agacaaagtt
660
cagctgatgg cagctgagaa gaagtctaag gcagagttgg aagatctaag gcaaagactc
720
aaggatctgg aagataaaga gaagaaagag aacaagaaaa tggctgatga ggatgccttg
780
aggaagatcc gggcagtgga ggagcagata gaatacctac agaagaagct a
831

```

<210> 766  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

```

<400> 766
Met Arg His Leu Ile Ser Ser Leu Gln Asn His Asn His Gln Leu Lys

```

```

      1           5           10           15
Gly Glu Val Leu Arg Tyr Lys Arg Lys Leu Arg Glu Ala Gln Ser Asp
      20           25           30
Leu Asn Lys Thr Arg Leu Arg Ser Gly Ser Ala Leu Leu Gln Ser Gln
      35           40           45
Ser Ser Thr Glu Asp Pro Lys Asp Glu Pro Ala Glu Leu Lys Pro Asp
      50           55           60
Ser Gly Asp Leu Ser Ser Gln Ser Ser Ala Ser Lys Ala Ser Gln Glu
      65           70           75           80
Asp Ala Asn Glu Ile Lys Ser Lys Arg Asp Glu Glu Glu Arg Glu Arg
      85           90           95
Glu Arg Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Arg Glu Lys Glu
      100          105          110
Lys Glu Arg Glu Arg Glu Lys Gln Lys Leu Lys Glu Ser Glu Lys Glu
      115          120          125
Arg Asp Ser Ala Lys Asp Lys Glu Lys Gly Lys His Asp Asp Gly Arg
      130          135          140
Lys Lys Glu Ala Glu Ile Ile Lys Gln Leu Lys Ile Glu Leu Lys Lys
      145          150          155          160
Ala Gln Glu Ser Gln Lys Glu Met Lys Leu Leu Leu Asp Met Tyr Arg
      165          170          175
Ser Ala Pro Lys Glu Gln Arg Asp Lys Val Gln Leu Met Ala Ala Glu
      180          185          190
Lys Lys Ser Lys Ala Glu Leu Glu Asp Leu Arg Gln Arg Leu Lys Asp
      195          200          205
Leu Glu Asp Lys Glu Lys Lys Glu Asn Lys Lys Met Ala Asp Glu Asp
      210          215          220
Ala Leu Arg Lys Ile Arg Ala Val Glu Glu Gln Ile Glu Tyr Leu Gln
      225          230          235          240
Lys Lys Leu

```

<210> 767  
 <211> 431  
 <212> DNA  
 <213> Homo sapiens

```

<400> 767
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60
ccccggcacc agaagttcct ctgcgcgtcc gacggcgaca tgggcgtccc cacggccccg
120
gaggccggca gctggcgctg gggatccctg ctcttcgctc tcttctctggc tgcgtcccta
180
ggtccggtgg cagccttcaa ggtcgccacg ccgtattccc tgtatgtctg tcccgagggg
240
cagaacgtca ccctcacctg caggtctctt ggccctgtgg acaaagggca cgatgtgacc
300
ttctacaaga cgtggtaccg cagctcgagg ggcgaggtgc agacctgctc agagcgccgg
360
cccatccgca acctcacgtt ccaggacatt cacctgcacc atggaggcca ccaggctgcc
420
aacaccagcc a
431

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<210> 768  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 768  
 Met Gly Val Pro Thr Ala Pro Glu Ala Gly Ser Trp Arg Trp Gly Ser  
 1 5 10 15  
 Leu Leu Phe Ala Leu Phe Leu Ala Ala Ser Leu Gly Pro Val Ala Ala  
 20 25 30  
 Phe Lys Val Ala Thr Pro Tyr Ser Leu Tyr Val Cys Pro Glu Gly Gln  
 35 40 45  
 Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val Asp Lys Gly His  
 50 55 60  
 Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser Ser Arg Gly Glu Val  
 65 70 75 80  
 Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg Asn Leu Thr Phe Gln Asp  
 85 90 95  
 Leu His Leu His His Gly Gly His Gln Ala Ala Asn Thr Ser  
 100 105 110

<210> 769  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 769  
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 cgacttcgaa ctccatcaag tgatttttgc ggtcgacgaa tctggtttcc gtatgaaaga  
 120  
 acggtatggt ttgtatgtcg cgccctgcc actcaaacct caccgtgtca cccacctcaa  
 180  
 aaaaatcccg ggtcgccca caaataaatc aattgcgccc ctctccgag ttcttccatg  
 240  
 tcaacgatct cccctggctg ctcaagccaa ggccctcgcg gccgtgggac tccaagggtg  
 300  
 acgttgaccc gactgatttc ggaccagttg gcgtcggtat tgggggcagg gtagttaccg  
 360  
 cccatgtcga tgatctacat cgccaccggc agcgtgtctt cgtagtcgtc atgcctgata  
 420  
 an  
 422

<210> 770  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 770  
 Met Phe Cys Met Ser Arg Pro Cys His Ser Asn Leu Thr Val Ser Pro  
 1 5 10 15  
 Thr Ser Lys Lys Ser Arg Val Gly Pro Gln Ile Asn Gln Leu Arg Arg

```

          20          25          30
Ser Ser Glu Phe Phe His Val Asn Asp Leu Pro Trp Leu Leu Lys Pro
          35          40          45
Arg Pro Ser Arg Pro Trp Asp Ser Lys Val Asp Val Asp Pro Thr Asp
          50          55          60
Phe Gly Pro Val Gly Val Gly Ile Gly Gly Arg Val Val Thr Ala His
65          70          75          80
Val Asp Asp Leu His Arg His Arg Gln Arg Val Phe Val Val Val Met
          85          90          95
Pro Asp Xaa

```

<210> 771  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

```

<400> 771
gcctacgcgc aattcctcgc gggatatggcg tttacaacatg cgtctctcgg gtagtgcat
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gcaatggcgc atcagctggg cggtttttac gatctgccgc acggcgtgtg caatgcgata
120
ctgttgccac acgtgcagac gtttaactgc aaagtggcgg cctcgcgcct gcgtgattgc
180
gcccaggcca tgggtgtcga tgtcagtcga atgacagcag aacagggcgc acagggcgtg
240
atcgagaga ttcgtctctt ggcacgtcag gtgaatatcc cggtgggatt gcgtgacctc
300
aacgtgaagg aagcggactt cccgattctg gcgaccaacg cgctaaaaga ccctgtgggt
360
ttgattaat
369

```

<210> 772  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

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<400> 772
Ala Tyr Ala Gln Phe Leu Ala Gly Met Ala Phe Asn Asn Ala Ser Leu
1          5          10          15
Gly Tyr Val His Ala Met Ala His Gln Leu Gly Gly Phe Tyr Asp Leu
          20          25          30
Pro His Gly Val Cys Asn Ala Ile Leu Leu Pro His Val Gln Thr Phe
          35          40          45
Asn Cys Lys Val Ala Ala Ser Arg Leu Arg Asp Cys Ala Gln Ala Met
          50          55          60
Gly Val Asp Val Ser Gln Met Thr Ala Glu Gln Gly Ala Gln Ala Cys
65          70          75          80
Ile Ala Glu Ile Arg Ser Leu Ala Arg Gln Val Asn Ile Pro Val Gly
          85          90          95
Leu Arg Asp Leu Asn Val Lys Glu Ala Asp Phe Pro Ile Leu Ala Thr
          100          105          110
Asn Ala Leu Lys Asp Pro Val Gly Leu Ile Asn

```

115

120

&lt;210&gt; 773

&lt;211&gt; 309

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 773

ccgccgttgc cggcgggtgga ttttctggta ggcttgaatc agcgcctggc tgccgacatc

60

ggttacttga tccgcgtgga gccgggcgta caaactccgg aattcacctt ggaaaacgcc

120

tccgggttcc gccgggattc ggctgtggtg ctggtgcaac tgctgcgcaa cctgggcctg

180

gcggcgcgat ttgtgtctgg ctatctgac caactgaccg ccgacgtcaa agccctcgac

240

ggcccgcccg gcaccgaggt ggatttcacc gacctgcatg cctggtgcga agtgatttg

300

cccgccgcc

309

&lt;210&gt; 774

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 774

Pro Pro Leu Pro Ala Val Asp Phe Leu Val Gly Leu Asn Gln Arg Leu

1

5

10

15

Ala Ala Asp Ile Gly Tyr Leu Ile Arg Val Glu Pro Gly Val Gln Thr

20

25

30

Pro Glu Phe Thr Leu Glu Asn Ala Ser Gly Ser Cys Arg Asp Ser Ala

35

40

45

Trp Leu Leu Val Gln Leu Leu Arg Asn Leu Gly Leu Ala Ala Arg Phe

50

55

60

Val Ser Gly Tyr Leu Ile Gln Leu Thr Ala Asp Val Lys Ala Leu Asp

65

70

75

80

Gly Pro Ser Gly Thr Glu Val Asp Phe Thr Asp Leu His Ala Trp Cys

85

90

95

Glu Val Tyr Leu Pro Gly Ala

100

&lt;210&gt; 775

&lt;211&gt; 4125

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 775

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60

atctcatctg acgtgagttc aagtacagat cacacgcccc cttaaagcccc gaagaatgtg

120

gctaccagcg aagactccga cctgagcatg cgcacactga gcacgccccag cccagccctg

180

atatgtccac cgaatctccc aggatttcag aatggaaggg gctcgtccac ctccctcgtcc  
240  
tccatcaccg gggagacggg gcccatggg cactccccgc ccccgaccg cctcacacac  
300  
ccgctcatcc ggctcgcctc cagaccccag aaggatcagg ccagcataga ccggctcccc  
360  
gaccactcca tgggtgcagat cttctccttc ctgcccacca accagctgtg ccgctgcgcg  
420  
cgagtgtgcc gccgctggta caacctggcc tgggaccgc ggctctggag gactatccgc  
480  
ctgacgggcg agaccatcaa cgtggaccgc gccctcaagg tgctgaccg cagactctgc  
540  
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600  
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660  
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720  
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780  
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960  
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1080  
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1320  
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1380  
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1440  
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1680  
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1740  
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1800

gccctttccc tcgcacacag gcccacccc cacagttcca cgccccccc ccaaggccac  
1860  
accctccctc cctagagcag cagcgaggat ccatcatcag aatcacagtg ctctccagac  
1920  
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1980  
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2040  
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2100  
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2160  
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2220  
accatacac agaagcacct tggcatagag caccaggca tcgacctctt ccaggagaac  
2280  
tgattctgtg gatggatgtg atttcaggag attgtgcagt gccagcatca gtgcataaag  
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2700  
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3000  
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3240  
aaaatgccc tctatccaaat gcagaacctc tgcacttcca agccagttat gctgaatttg  
3300  
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3360  
cttctgtggg ggaatggagag gttagtgtga tgaggtggtg tctgcccagg aggtttcttt  
3420

caaacatcat ggctcccat ccaatcaaca tcatacaatt acatgtgtaa tcaaggctct  
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 3540  
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 3600  
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 3720  
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 3780  
 agcacatacc gtcttgccag tttcttcttt tctccagtc tctgttcat ccattctgtt  
 3840  
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 3900  
 gagaccaaac caaaggtctc actaggaaat ttatctgttt taaaacattg ctctcttctc  
 3960  
 ggctctgcta aattgaatgc tcattgtttg ttgttggtgt tttttaattc taatgttcaa  
 4020  
 atcaactgct gctgtatgaa tctagaaagc ctttaattac taccaagaaa taaagcaata  
 4080  
 tgttcgtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa  
 4125

<210> 776

<211> 483

<212> PRT

<213> Homo sapiens

<400> 776

Tyr	Gly	Ser	Glu	Gly	Lys	Gly	Ser	Ser	Ser	Ile	Ser	Ser	Asp	Val	Ser
1				5					10					15	
Ser	Ser	Thr	Asp	His	Thr	Pro	Thr	Lys	Ala	Gln	Lys	Asn	Val	Ala	Thr
			20					25					30		
Ser	Glu	Asp	Ser	Asp	Leu	Ser	Met	Arg	Thr	Leu	Ser	Thr	Pro	Ser	Pro
		35					40					45			
Ala	Leu	Ile	Cys	Pro	Pro	Asn	Leu	Pro	Gly	Phe	Gln	Asn	Gly	Arg	Gly
	50					55					60				
Ser	Ser	Thr	Ser	Ser	Ser	Ser	Ile	Thr	Gly	Glu	Thr	Val	Ala	Met	Val
65					70					75				80	
His	Ser	Pro	Pro	Pro	Thr	Arg	Leu	Thr	His	Pro	Leu	Ile	Arg	Leu	Ala
				85					90					95	
Ser	Arg	Pro	Gln	Lys	Asp	Gln	Ala	Ser	Ile	Asp	Arg	Leu	Pro	Asp	His
			100					105					110		
Ser	Met	Val	Gln	Ile	Phe	Ser	Phe	Leu	Pro	Thr	Asn	Gln	Leu	Cys	Arg
		115					120					125			
Cys	Ala	Arg	Val	Cys	Arg	Arg	Trp	Tyr	Asn	Leu	Ala	Trp	Asp	Pro	Arg
	130					135					140				
Leu	Trp	Arg	Thr	Ile	Arg	Leu	Thr	Gly	Glu	Thr	Ile	Asn	Val	Asp	Arg
145				150					155					160	
Ala	Leu	Lys	Val	Leu	Thr	Arg	Arg	Leu	Cys	Gln	Asp	Thr	Pro	Asn	Val
				165					170					175	
Cys	Leu	Met	Leu	Glu	Thr	Val	Thr	Val	Ser	Gly	Cys	Arg	Arg	Leu	Thr



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      180      185      190
Asp Arg Gly Leu Tyr Thr Ile Ala Gln Cys Cys Pro Glu Leu Arg Arg
      195      200      205
Leu Glu Val Ser Gly Cys Tyr Asn Ile Ser Asn Glu Ala Val Phe Asp
      210      215      220
Val Val Ser Leu Cys Pro Asn Leu Glu His Leu Asp Val Ser Gly Cys
      225      230      235      240
Ser Lys Val Thr Cys Ile Ser Leu Thr Arg Glu Ala Ser Ile Lys Leu
      245      250      255
Ser Pro Leu His Gly Lys Gln Ile Ser Ile Arg Tyr Leu Asp Met Thr
      260      265      270
Asp Cys Phe Val Leu Glu Asp Glu Gly Leu His Thr Ile Ala Ala His
      275      280      285
Cys Thr Gln Leu Thr His Leu Tyr Leu Arg Arg Cys Val Arg Leu Thr
      290      295      300
Asp Glu Gly Leu Arg Tyr Leu Val Ile Tyr Cys Ala Ser Ile Lys Glu
      305      310      315      320
Leu Ser Val Ser Asp Cys Arg Phe Val Ser Asp Phe Gly Leu Arg Glu
      325      330      335
Ile Ala Lys Leu Glu Ser Arg Leu Arg Tyr Leu Ser Ile Ala His Cys
      340      345      350
Gly Arg Val Thr Asp Val Gly Ile Arg Tyr Val Ala Lys Tyr Cys Ser
      355      360      365
Lys Leu Arg Tyr Leu Asn Ala Arg Gly Cys Glu Gly Ile Thr Asp His
      370      375      380
Gly Val Glu Tyr Leu Ala Lys Asn Cys Thr Lys Leu Lys Ser Leu Asp
      385      390      395      400
Ile Gly Lys Cys Pro Leu Val Ser Asp Thr Gly Leu Glu Cys Leu Ala
      405      410      415
Leu Asn Cys Phe Asn Leu Lys Arg Leu Ser Leu Lys Ser Cys Glu Ser
      420      425      430
Ile Thr Gly Gln Gly Leu Gln Ile Val Ala Ala Asn Cys Phe Asp Leu
      435      440      445
Gln Thr Leu Asn Val Gln Asp Cys Glu Val Ser Val Glu Ala Leu Arg
      450      455      460
Phe Val Lys Arg His Cys Lys Arg Cys Val Ile Glu His Thr Asn Pro
      465      470      475      480
Ala Phe Phe

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<210> 777  
 <211> 705  
 <212> DNA  
 <213> Homo sapiens

<400> 777  
 ggtaccatcg tttttaaaccc taattaagat attactcatt cttgttggtg cccaattcca  
 60  
 caccaatctg ctctttaatg ccagactgat ggctctaaca atccttatta actccttttt  
 120  
 gtggcttcaa ggaaaaacaa aaacctcttc tctcattcac cacctctagg ccaggagaaa  
 180  
 ttatttttgg ttcaggcttt cacagtgggg gtctgaaagt gaccagtcta gaaaaggatg  
 240

actcagcaaa aggagagctc tgaaggtecc tgaggcgcca cggteccagca ttattaggtc  
 300  
 acatgggtatg acctgaaaca aatacgttct tcccaaatgt ggcaggaccg ggagagcttc  
 360  
 tcaccaggag ggaaccgccg caatgaccgc cggacgtcca gcaacacttg ttggtagtcc  
 420  
 ttgtctcatct gccgtagggtt cttccctgat ataggaggtg ggtcattggc attgacattg  
 480  
 aggagcttgg gccacacttt tcgtctgac tcatcagtca ggagccctcc ttcactgata  
 540  
 gccatgcgtc taagggcagc cacatcagtg ggatcactgt tcagagcctg gtgtatctct  
 600  
 aacactttct ttttcctttt ggcgttaaag tctgccttct ccgcgcgcgc gtcccagtgg  
 660  
 ccggaggtgg gccgtcccct gcgcactccg gaggccatcc ccggg  
 705

<210> 778  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 778  
 Met Ala Ser Gly Val Arg Arg Gly Arg Pro Thr Ser Gly His Trp Asp  
 1 5 10 15  
 Gly Gly Ala Glu Lys Ala Asp Phe Asn Ala Lys Arg Lys Lys Lys Val  
 20 25 30  
 Leu Glu Ile His Gln Ala Leu Asn Ser Asp Pro Thr Asp Val Ala Ala  
 35 40 45  
 Leu Arg Arg Met Ala Ile Ser Glu Gly Gly Leu Leu Thr Asp Glu Ile  
 50 55 60  
 Arg Arg Lys Val Trp Pro Lys Leu Leu Asn Val Asn Ala Asn Asp Pro  
 65 70 75 80  
 Pro Pro Ile Ser Gly Lys Asn Leu Arg Gln Met Ser Lys Asp Tyr Gln  
 85 90 95  
 Gln Val Leu Leu Asp Val Arg Arg Ser Leu Arg Arg Phe Pro Pro Gly  
 100 105 110  
 Glu Lys Leu Ser Arg Ser Cys His Ile Trp Glu Glu Arg Ile Cys Phe  
 115 120 125  
 Arg Ser Tyr His Val Thr  
 130

<210> 779  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 779  
 tccggacatg tgcaaacat tcaatgatgt ggtgcgtcga catggtgtgc atcactctgt  
 60  
 gactgtgagt gattctgagg ataccgttgc gccgtcccag ctgggtcgat cccctcgtaa  
 120  
 cgccttgctt ttgaaggaa ccaagtgggaa ggctagacca agtaaatatg aatcaccaaa  
 180

cgccagcaac ttcacgtca ggcattgtgc aactggcaaa gagggcactg atgatgagta  
 240  
 tgctaactca aactactact actcgatgtc tgccaatcga ctaggagacg aggaaacgga  
 300  
 ggaaatgata ggtttggcta cc  
 322

<210> 780  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 780  
 Met Cys Lys Gln Phe Asn Asp Val Val Arg Arg His Gly Val His His  
 1 5 10 15  
 Ser Val Thr Val Ser Asp Ser Glu Asp Thr Val Ala Pro Ser Gln Leu  
 20 25 30  
 Val Arg Ser Pro Arg Asn Ala Leu Pro Leu Lys Glu Pro Ser Gly Lys  
 35 40 45  
 Ala Arg Pro Ser Lys Tyr Glu Ser Pro Asn Ala Ser Asn Phe Ile Val  
 50 55 60  
 Arg His Val Ala Thr Gly Lys Glu Gly Thr Asp Asp Glu Tyr Ala Asn  
 65 70 75 80  
 Ser Asn Tyr Tyr Tyr Ser Met Ser Ala Asn Arg Leu Gly Asp Glu Glu  
 85 90 95  
 Thr Glu Glu Met Ile Gly Leu Ala Thr  
 100 105

<210> 781  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 781  
 nntcgcgtgc ctggaatgtg tgtctgtgta tgtgtgtgta tgtatgtgtg tatggaatgt  
 60  
 gtgtgtatgn gaatatgtgt gtgtatgnga atgtgtgtgt gtgtttggaa tgtgtgtatg  
 120  
 gaatgtgtgt ctgtgtatgg aatatgtgtg agtatngaa tgtgtgtgtg tgtttggaat  
 180  
 gtatcgaatg tgtgtctgtg tgtaaggaat gtgtgtgtat ggaatgtgtt tacgtgcatg  
 240  
 tgtctggaat gtgtgtgtat ggaatgtgtg tgtatgtgta tngaatgtg tgtgtgt  
 297

<210> 782  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 782  
 Xaa Arg Val Pro Gly Met Cys Val Cys Val Cys Val Cys Met Tyr Val  
 1 5 10 15  
 Cys Met Glu Cys Val Cys Met Xaa Ile Cys Val Cys Met Xaa Met Cys

```

      20      25      30
Val Cys Val Trp Asn Val Cys Met Glu Cys Val Ser Val Tyr Gly Ile
      35      40      45
Cys Val Ser Met Xaa Met Cys Val Cys Val Trp Asn Val Ser Asn Val
      50      55      60
Cys Leu Cys Val Arg Asn Val Cys Val Trp Asn Val Phe Thr Cys Met
65      70      75      80
Cys Leu Glu Cys Val Cys Met Glu Cys Val Cys Met Cys Met Xaa Met
      85      90      95
Cys Val Cys

```

<210> 783  
 <211> 612  
 <212> DNA  
 <213> Homo sapiens

```

<400> 783
accggtgacg taactgctcc cgctggcagc ttcgagggcg atgtcgattt gcgtgcccg
60
caccgggtcg agtgagctgc ccagcagcaa gcccaccaca tcggtgacca gaccgatcac
120
tttgttgagc acgtcgatga cgggcaactt caaggaaatc caggtgcgga cttgcgcggt
180
ccgcacaaaa atcggctggg tgctgatcaa ctgcgggttg ccaatcgag aatttgcgcg
240
gttcgatgac acgtgtcttc accgtgatat tcagcagccc cagtacgtcc accggcaact
300
cgacggccac cgcgctggct ttgttgga gctgcacaaa gccctgaatc aggttgaaca
360
gttgagggtt gacgtccagg gcgtcttctt ccggtgccgtt ttgtatattg atcaggtcgc
420
ccagggtcag gatctgcgtg cctggggcaa tcagcttgat tgcttcgagg ttattgatca
480
ccacctggac cgcattaccg ccagcttga gcacatcgat ggcggcctgg atcaactggc
540
cgacggtcgc gtcggtcttg agcaactggc cgtagttgcc ggcgctgacg ttgaggcgga
600
tggccgacgc gt
612

```

<210> 784  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

```

<400> 784
Met Ser Ile Cys Val Pro Gly Thr Gly Ser Ser Glu Leu Pro Ser Ser
  1      5      10      15
Lys Pro Thr Thr Ser Val Thr Arg Pro Ile Thr Leu Leu Ser Thr Ser
      20      25      30
Met Thr Gly Asn Phe Lys Glu Ile Gln Val Arg Thr Cys Ala Val Arg
      35      40      45
Thr Lys Ile Gly Trp Val Ser Ile Asn Cys Gly Leu Pro Ile Ala Glu

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      50              55              60
Phe Ala Arg Phe Asp Asp Thr Cys Leu His Arg Asp Ile Gln Gln Pro
65              70              75              80
Gln Tyr Val His Arg Gln Leu Asp Gly His Arg Ala Gly Phe Val Gly
      85              90              95
Gln Leu His Lys Ala Leu Asn Gln Val Glu Gln Leu Gln Val Asp Val
      100             105             110
Gln Gly Ala Leu Val Arg Ala Val Leu Tyr Ile Asp Gln Val Ala Gln
      115             120             125
Val Gln Asp Leu Arg Ala Trp Gly Asn Gln Leu Asp Cys Phe Glu Val
      130             135             140
Ile Asp His His Leu Asp Arg Ile Thr Ala Gln Leu Glu His Ile Asp
      145             150             155             160
Gly Gly Leu Asp Gln Leu Ala Asp Gly Arg Val Gly Leu Glu Gln Leu
      165             170             175
Val Val Val Ala Gly Ala Asp Val Glu Ala Asp Gly Arg Arg
      180             185             190

```

<210> 785  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

```

<400> 785
accttggaact acttcactat cgaccctcgg ctaggcgacg acgatgactt cgatcacctg
60
cttcaggccg cccacgctcg tggctgtgca gtactgctcg acggggtggg caaccacgtc
120
tcgctgcgca accgcatcgt gcaggatgcg cagagtgcgt ggccagattc agacgccggc
180
cgtatgggtc gctgggtgtga ggggcgcctc gacgttttc agggtcatag tgacctggtc
240
gcactcaacc acgacaaccc cgcagtgcgg gaacatgtca cccggatcat gaactattgg
300
tgcggtcgcg gtgttgacgg ctggcggctg gacgcgcgta ttccgtcaat cctgagttct
360
gggctgcggt gctgcctccg gtgcgagaga agcgcctga cgtgagga
408

```

<210> 786  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

```

<400> 786
Thr Leu Asp Tyr Phe Thr Ile Asp Pro Arg Leu Gly Asp Asp Asp Asp
1      5      10      15
Phe Asp His Leu Leu Gln Ala Ala His Ala Arg Gly Leu Ser Val Leu
20     25     30
Leu Asp Gly Val Val Asn His Val Ser Arg Arg Asn Arg Ile Val Gln
35     40     45
Asp Ala Gln Ser Ala Gly Pro Asp Ser Asp Ala Gly Arg Met Val Arg
50     55     60
Trp Cys Glu Gly Arg Leu Asp Val Phe Glu Gly His Ser Asp Leu Val

```

65                      70                      75                      80  
 Ala Leu Asn His Asp Asn Pro Ala Val Arg Glu His Val Thr Arg Ile  
                                  85                      90                      95  
 Met Asn Tyr Trp Cys Gly Arg Gly Val Asp Gly Trp Arg Leu Asp Ala  
                                  100                      105                      110  
 Ala Ile Pro Ser Ile Leu Ser Ser Gly Leu Arg Cys Cys Leu Arg Cys  
                                  115                      120                      125  
 Glu Arg Ser Ala Leu Thr  
                                  130

<210> 787  
 <211> 310  
 <212> DNA  
 <213> Homo sapiens

<400> 787  
 acgcgtgaag ggggaatgaaa gggtttttcc tggatcaaaa tgatgcttgt ggcagacaca  
 60  
 gttggaacca cagacgatgc cacgcttgtg tcagcagtgc gacactggcc cacgtggcgt  
 120  
 ccttggtctc tctcattgc tgcgcact gtgtgctggg catgccctgc agttaccca  
 180  
 aagctttatg tcacaacatt gaggctggcg gagaaagacc ggcccttca cccacctta  
 240  
 gacttcctgg aagggccgcc cgggtccaca acctggcccg ttaactccct gggcagctgc  
 300  
 tgggggagaa  
 310

<210> 788  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 788  
 Met Met Leu Val Ala Asp Thr Val Gly Thr Thr Asp Asp Ala Thr Leu  
   1                                 5                                 10                                 15  
 Val Ser Ala Val Arg His Trp Pro Thr Trp Arg Pro Trp Ser Leu Leu  
                                  20                                 25                                 30  
 Ile Ala Ala Val Thr Val Cys Trp Ala Cys Pro Ala Val Thr Pro Lys  
                                  35                                 40                                 45  
 Leu Tyr Val Thr Thr Leu Arg Leu Ala Glu Lys Asp Arg Pro Leu His  
                                  50                                 55                                 60  
 Pro Thr Leu Asp Phe Leu Gly Pro Pro Gly Ser Thr Thr Trp Pro  
 65                                 70                                 75                                 80  
 Val Asn Ser Leu Gly Ser Cys Trp Gly Arg  
                                  85                                 90

<210> 789  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 789

acgcgtgaag ttgcagcagc aagcaatctg cctcgcttct ggtgcccacc gaaaccaagg  
 60  
 tctgccagac agcagcgctg ggacctctcc cctccccage aggatgggccc ggctctggaa  
 120  
 gcacgaggtg ttccaaagtg caaacaagct gctgttaaata aattattccc aaacgcaaaa  
 180  
 gcccttgctg gtttgcttgc ttgctttttt ctttttttgc ctgcacaga tatcgctagg  
 240  
 gcagagtatt gacatttcgt tttctttttg ttatgggtga taaagcacgg tgtttcttgt  
 300  
 gagtgtatgc ctgtatttcc ctgcagagct gattgccagt ccattttctt ctatcccatc  
 360  
 cccattttc  
 369

<210> 790  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 790  
 Met Asp Trp Gln Ser Ala Leu Gln Gly Asn Thr Gly Ile His Ser Gln  
 1 5 10 15  
 Glu Thr Pro Cys Phe Ile Thr His Asn Lys Lys Lys Thr Lys Cys Gln  
 20 25 30  
 Tyr Ser Ala Leu Ala Ile Ser Val Arg Gly Lys Lys Arg Lys Lys Gln  
 35 40 45  
 Ala Ser Lys Pro Ala Arg Ala Leu Ala Phe Gly Asn Asn Tyr Leu Thr  
 50 55 60  
 Ala Ala Cys Leu His Phe Gly Thr Pro Arg Ala Ser Arg Ala Gly Pro  
 65 70 75 80  
 Ser Cys Trp Gly Gly Glu Arg Ser Gln Arg Cys Cys Leu Ala Asp Leu  
 85 90 95  
 Gly Phe Gly Gly His Gln Lys Arg Gly Arg Leu Leu Ala Ala Ala Thr  
 100 105 110  
 Ser Arg

<210> 791  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 791  
 nctctgacca aaaggaaggt atatgaaaac acaacactag gcttcattgt tgaagttgaa  
 60  
 ggtcttccag ttcttggtgt gaaatgggtat cgaaataaat ctttactaga gccagatgaa  
 120  
 agaatcaaaa tggaaagagt gggtaatgtg tggtcactgg aaatttctaa cattcaaaaa  
 180  
 ggagaagggg gagagtacat gtgtcatgct gtaaacatca taggggaagc aaagagcttt  
 240  
 gcaaagttag acataatgcc ccaggaagaa agagtgggtg cactaccacc tccagtaaca  
 300

catcagcatg tcattggagtt tgatttgga cacaccacat catcaagaac accttctcct  
 360  
 caagaaattg tcctggaagt tgaattaagt gaaaaagacg ttaaagaatt tgagaagcag  
 420

<210> 792  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 792  
 Thr Lys Arg Lys Val Tyr Glu Asn Thr Thr Leu Gly Phe Ile Val Glu  
 1 5 10 15  
 Val Glu Gly Leu Pro Val Pro Gly Val Lys Trp Tyr Arg Asn Lys Ser  
 20 25 30  
 Leu Leu Glu Pro Asp Glu Arg Ile Lys Met Glu Arg Val Gly Asn Val  
 35 40 45  
 Cys Ser Leu Glu Ile Ser Asn Ile Gln Lys Gly Glu Gly Gly Glu Tyr  
 50 55 60  
 Met Cys His Ala Val Asn Ile Ile Gly Glu Ala Lys Ser Phe Ala Asn  
 65 70 75 80  
 Val Asp Ile Met Pro Gln Glu Glu Arg Val Val Ala Leu Pro Pro Pro  
 85 90 95  
 Val Thr His Gln His Val Met Glu Phe Asp Leu Glu His Thr Thr Ser  
 100 105 110  
 Ser Arg Thr Pro Ser Pro Gln Glu Ile Val Leu Glu Val Glu Leu Ser  
 115 120 125  
 Glu Lys Asp Val Lys Glu Phe Glu Lys Gln  
 130 135

<210> 793  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 793  
 nacgcgtgcc gggtctcggga aattcattat gggaatgtgc gcgttggtgga gatgctcaga  
 60  
 ccgcgaacag tactgcggga acccaaacga tcatttttaa cccagacgt ccctgaacca  
 120  
 aagccaaagt ctacaggtca ctggggcaga ggccgcccga aaccagcttc ccctcccggc  
 180  
 ctaggcggc caggtccccg ccagccggg gcgatccttt ggtcggacag tgagggttggg  
 240  
 agcccaccgc acccaagtcc gccgcatcca ccgggcgcag gcgacccccg acgggcagcc  
 300  
 gctcaccttc tcctggcccc gggttcagga aaactgcctg gaggtggccg gggttcctta  
 360  
 gcggaggctg ggccggcggc ttccgcctg cctcagtcct cccatccgtg gcccggggga  
 420  
 tggagcccgc tgcgcgcaga ggctgcggca ggtcccagcc aggtgccctg gaacgtgga  
 479

<210> 794



<211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 794  
 Xaa Ala Cys Arg Phe Ser Glu Ile His Tyr Gly Asn Val Arg Val Val  
 1 5 10 15  
 Glu Met Leu Arg Pro Arg Thr Val Leu Arg Glu Pro Lys Arg Ser Phe  
 20 25 30  
 Leu Thr Pro Asp Val Pro Glu Pro Lys Pro Lys Ser Thr Gly His Trp  
 35 40 45  
 Gly Arg Gly Arg Pro Lys Pro Ala Ser Pro Pro Gly Leu Gly Ala Pro  
 50 55 60  
 Gly Pro Arg Pro Ala Gly Ala Ile Leu Trp Ser Asp Ser Glu Val Gly  
 65 70 75 80  
 Ser Pro Pro His Pro Ser Pro Pro His Pro Pro Gly Ala Gly Asp Pro  
 85 90 95  
 Arg Arg Ala Ala Ala His Leu Leu Leu Ala Pro Ala Ser Gly Lys Leu  
 100 105 110  
 Pro Gly Gly Gly Arg Gly Ser Leu Ala Glu Ala Gly Arg Arg Ala Ser  
 115 120 125  
 Arg Leu Pro Gln Ser Pro His Pro Trp Pro Gly Gly Trp Ser Pro Leu  
 130 135 140  
 Arg Ala Glu Ala Ala Ala Gly Pro Ser Gln Val Pro Trp Asn Val  
 145 150 155

<210> 795  
 <211> 1418  
 <212> DNA  
 <213> Homo sapiens

<400> 795  
 gccggcggcg gggaggccgg ggccctgcagg cccccgtac gacaagatcc ggactccggc  
 60  
 ccggactacg aggcgctgcc ggctggagcc actgtcacca cgcacatggt ggcaggcgcc  
 120  
 gtggcaggga tcctggagca ctgcgtgatg taccccatcg actgctgcaa gaccgggatg  
 180  
 cagagtctac agcctgaccc agctgcccgc tatcgcaatg tggtggaggc cctctggagg  
 240  
 attataagaa cggagggcct atggaggccc atgagggggc tgaacgtcac agcaacaggc  
 300  
 gcagggcctg cccacgccct ttattttgcc tgctacgaaa agttaaaaaa gacattgagt  
 360  
 gatgtaatcc accctggggg caatagccat attgccaatg gtgcggccgg gtgtgtggca  
 420  
 acattacttc atgatgcagc catgaaccct gcggaaggct gatctgctga cttggggctc  
 480  
 tgaatctgga tactctccat caccggttgg ctgctgtcac catttccttc ctcgttgatg  
 540  
 gcaactactag tggtaagca gaggatgcag atgtacaact caccatacca ccgggtgaca  
 600  
 gactgtgtac gggcagtggt gcaaatgaa ggggccgggg ccttttaccg cagctacacc  
 660

acccagctga ccatgaacgt tcctttccaa gccattcact tcatgaccta tgaattcctg  
 720  
 caggagcact ttaaccccca gagacggtac aacccaagct cccacgtcct ctctggagct  
 780  
 tgcgcaggag ctgtagctgc cgcagccaca accccactgg acgtttgcaa aacactgctc  
 840  
 aacacccagg agtccttggc tttgaactca cacattacag gacatatcac aggcattggt  
 900  
 agtgccttca ggacggtata tcaagtaggt ggggtgaccg cctatttccg aggggtgcag  
 960  
 gccagagtaa tttaccagat cccctccaca gccatcgcat ggtctgtgta tgagttcttc  
 1020  
 aaatacctaa tcactaaaag gcaagaagag tggagggctg gcaagtgaag tagcactgaa  
 1080  
 cgaagccagg gggttcagatg aactgctgc atcctgggtca cattctctgt ctctggaat  
 1140  
 gctccacact caagtggagt tagaaggaag gtagaggggc tctccccag gattttggtg  
 1200  
 ttttgactaa caccagtcc tgccaacctc tgttgccacc acctttcctt ccaggcccta  
 1260  
 agcagtgca gcaaagcaca ccacagcacc tttgataacc tctctccatc ctgggectga  
 1320  
 tgacctgctc tagactgtta tagagggata agcagctcat tcccctgggt cctaataaaa  
 1380  
 agcctttaa ttaaaaaaaaa aaaaaaaaaa aaaaaaaaa  
 1418

&lt;210&gt; 796

&lt;211&gt; 176

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 796

Met	Ala	Leu	Leu	Val	Val	Lys	Gln	Arg	Met	Gln	Met	Tyr	Asn	Ser	Pro
1				5					10					15	
Tyr	His	Arg	Val	Thr	Asp	Cys	Val	Arg	Ala	Val	Trp	Gln	Asn	Glu	Gly
		20						25					30		
Ala	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Val
		35					40				45				
Pro	Phe	Gln	Ala	Ile	His	Phe	Met	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	His
	50					55				60					
Phe	Asn	Pro	Gln	Arg	Arg	Tyr	Asn	Pro	Ser	Ser	His	Val	Leu	Ser	Gly
65				70					75				80		
Ala	Cys	Ala	Gly	Ala	Val	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp	Val
			85					90					95		
Cys	Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Ser	Leu	Ala	Leu	Asn	Ser	His
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Ile	Thr	Gly	His	Ile	Thr	Gly	Met	Ala	Ser	Ala	Phe	Arg	Thr	Val	Tyr
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Gln	Val	Gly	Gly	Val	Thr	Ala	Tyr	Phe	Arg	Gly	Val	Gln	Ala	Arg	Val
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Ile	Tyr	Gln	Ile	Pro	Ser	Thr	Ala	Ile	Ala	Trp	Ser	Val	Tyr	Glu	Phe
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165

170

175

&lt;210&gt; 797

&lt;211&gt; 585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 797

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&lt;210&gt; 798

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 798

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Ile	Ala	Gly	Asp	Gln	Gln	Ala	Ala	Leu	Phe	Gly	Gln	Met	Cys	Val	Glu
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Ala	Gly	Gln	Ala	Lys	Asn	Thr	Tyr	Gly	Thr	Gly	Cys	Phe	Leu	Leu	Met
				85				90						95	
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Val	Phe	Asn	Gly	Gly	Ser	Pro	Val	Gln	Trp	Leu	Arg	Asp	Glu	Leu	Lys
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145                      150                      155                      160  
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 Gly Val Arg  
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<210> 799

<211> 2152

<212> DNA

<213> Homo sapiens

<400> 799

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<211> 95

<212> PRT

<213> Homo sapiens

<400> 800

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		20						25					30		
Ala	Gln	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp	Glu	Ala	Glu	Ala	Gly
		35					40					45			
Gly	Ser	Arg	Asn	Pro	Ser	Thr	Leu	Arg	Gly	Arg	Gly	Gly	Gln	Ile	Met
		50				55					60				
Arg	Ser	Arg	Asp	Gln	Asp	His	Pro	Gly	Gln	Asn	Gly	Glu	Thr	Pro	Ser
65				70						75				80	
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<211> 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 801

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atgn
424

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&lt;210&gt; 802

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 802

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Ile Gly Pro Asn Gly Cys Gly Lys Ser Thr Leu Leu Ser His Leu Tyr
      35             40             45
Arg Leu His Ser Thr Lys Asn Lys Ile Thr Leu Asn Gly Lys Pro Leu
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Glu Ser Tyr Lys Gly Arg Glu Phe Ala Gln Leu Val Ala Val Leu Thr
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Gln Ser Arg Asp Ala Met Ile Asp Asp Phe Leu Val Lys Asp Ile Val
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Leu Met Gly Arg Asp Pro Tyr Lys Gln His Phe Gly Thr Tyr Ser Ser
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Glu Asp Val Lys Ile Ala Glu His Tyr Met
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&lt;210&gt; 803

&lt;211&gt; 6863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 803

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6600

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 6780  
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 6863

<210> 804

<211> 1400

<212> PRT

<213> Homo sapiens

<400> 804

Ala	Arg	Pro	Gly	Trp	Pro	Ser	Ala	His	Pro	Leu	Ser	Pro	Arg	Leu	Phe
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Pro	Arg	Lys	Ala	Glu	Pro	His	Ser	Phe	Arg	Glu	Lys	Val	Phe	Arg	Lys
		20					25						30		
Lys	Pro	Pro	Val	Cys	Ala	Val	Cys	Lys	Val	Thr	Ile	Asp	Gly	Thr	Gly
		35				40						45			
Val	Ser	Cys	Arg	Val	Cys	Lys	Val	Ala	Thr	His	Arg	Lys	Cys	Glu	Ala
	50				55						60				
Lys	Val	Thr	Ser	Ala	Cys	Gln	Ala	Leu	Pro	Pro	Val	Glu	Leu	Arg	Arg
65				70					75					80	
Asn	Thr	Ala	Pro	Val	Arg	Arg	Ile	Glu	His	Leu	Gly	Ser	Thr	Lys	Ser
			85						90					95	
Leu	Asn	His	Ser	Lys	Gln	Arg	Ser	Thr	Leu	Pro	Arg	Ser	Phe	Ser	Leu
		100					105						110		
Asp	Pro	Leu	Met	Glu	Arg	Arg	Trp	Asp	Leu	Asp	Leu	Thr	Tyr	Val	Thr
		115				120						125			
Glu	Arg	Ile	Leu	Ala	Ala	Ala	Phe	Pro	Ala	Arg	Pro	Asp	Glu	Gln	Arg
	130				135						140				
His	Arg	Gly	His	Leu	Arg	Glu	Leu	Ala	His	Val	Leu	Gln	Ser	Lys	His
145				150					155					160	
Arg	Asp	Lys	Tyr	Leu	Leu	Phe	Asn	Leu	Ser	Glu	Lys	Arg	His	Asp	Leu
			165					170					175		
Thr	Arg	Leu	Asn	Pro	Lys	Val	Gln	Asp	Phe	Gly	Trp	Pro	Glu	Leu	His
		180					185						190		
Ala	Pro	Pro	Leu	Asp	Lys	Leu	Cys	Ser	Ile	Cys	Lys	Ala	Met	Glu	Thr
	195					200						205			
Trp	Leu	Ser	Ala	Asp	Pro	Gln	His	Val	Val	Val	Leu	Tyr	Cys	Lys	Gly
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Asn	Lys	Gly	Lys	Leu	Gly	Val	Ile	Val	Ser	Ala	Tyr	Met	His	Tyr	Ser
225				230						235				240	
Lys	Ile	Ser	Ala	Gly	Ala	Asp	Gln	Ala	Leu	Ala	Thr	Leu	Thr	Met	Arg
			245					250						255	
Lys	Phe	Cys	Glu	Asp	Lys	Val	Ala	Thr	Glu	Leu	Gln	Pro	Ser	Gln	Arg
		260					265						270		
Arg	Tyr	Ile	Ser	Tyr	Phe	Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Arg	Met
	275					280					285				
Asn	Ser	Ser	Pro	Leu	Phe	Leu	His	Tyr	Val	Leu	Ile	Pro	Met	Leu	Pro

290		295		300
Ala Phe Glu Pro Gly Thr Gly Phe Gln Pro Phe Leu Lys Ile Tyr Gln				
305		310		320
Ser Met Gln Leu Val Tyr Thr Ser Gly Val Tyr His Ile Ala Gly Pro				
	325		330	335
Gly Pro Gln Gln Leu Cys Ile Ser Leu Glu Pro Ala Leu Leu Leu Lys				
	340		345	350
Gly Asp Val Met Val Thr Cys Tyr His Lys Gly Gly Arg Gly Thr Asp				
	355		360	365
Arg Thr Leu Val Phe Arg Val Gln Phe His Thr Cys Thr Ile His Gly				
	370		375	380
Pro Gln Leu Thr Phe Pro Lys Asp Gln Leu Asp Glu Ala Trp Thr Asp				
385		390		400
Glu Arg Phe Pro Phe Gln Ala Ser Val Glu Phe Val Phe Ser Ser Ser				
	405		410	415
Pro Glu Lys Ile Lys Gly Ser Thr Pro Arg Asn Asp Pro Ser Val Ser				
	420		425	430
Val Asp Tyr Asn Thr Thr Glu Pro Ala Val Arg Trp Asp Ser Tyr Glu				
	435		440	445
Asn Phe Asn Gln His His Glu Asp Ser Val Asp Gly Ser Leu Thr His				
	450		455	460
Thr Arg Gly Pro Leu Asp Gly Ser Pro Tyr Ala Gln Val Gln Arg Pro				
465		470		480
Pro Arg Gln Thr Pro Pro Ala Pro Ser Pro Glu Pro Pro Pro Pro Pro				
	485		490	495
Met Leu Ser Val Ser Ser Asp Ser Gly His Ser Ser Thr Leu Thr Thr				
	500		505	510
Glu Pro Ala Ala Glu Ser Pro Gly Arg Pro Pro Pro Thr Ala Ala Glu				
	515		520	525
Arg Gln Glu Leu Asp Arg Leu Leu Gly Gly Cys Gly Val Ala Ser Gly				
	530		535	540
Gly Arg Gly Ala Gly Arg Glu Thr Ala Ile Leu Asp Asp Glu Glu Gln				
545		550		560
Pro Thr Val Gly Gly Gly Pro His Leu Gly Val Tyr Pro Gly His Arg				
	565		570	575
Pro Gly Leu Ser Arg His Cys Ser Cys Arg Gln Gly Tyr Arg Glu Pro				
	580		585	590
Cys Gly Val Pro Asn Gly Gly Tyr Tyr Arg Pro Glu Gly Thr Leu Glu				
	595		600	605
Arg Arg Arg Leu Ala Tyr Gly Gly Tyr Glu Gly Ser Pro Gln Gly Tyr				
	610		615	620
Ala Glu Ala Ser Met Glu Lys Arg Arg Leu Cys Arg Ser Leu Ser Glu				
625		630		640
Gly Leu Tyr Pro Tyr Pro Pro Glu Met Gly Lys Pro Ala Thr Gly Asp				
	645		650	655
Phe Gly Tyr Arg Ala Pro Gly Tyr Arg Glu Val Val Ile Leu Glu Asp				
	660		665	670
Pro Gly Leu Pro Ala Leu Tyr Pro Cys Pro Ala Cys Glu Glu Lys Leu				
	675		680	685
Ala Leu Pro Thr Ala Ala Leu Tyr Gly Leu Arg Leu Glu Arg Glu Ala				
	690		695	700
Gly Glu Gly Trp Ala Ser Glu Ala Gly Lys Pro Leu Leu His Pro Val				
705		710		720
Arg Pro Gly His Pro Leu Pro Leu Leu Leu Pro Ala Cys Gly His His				

[illegible]

1155 1160 1165  
 Leu Lys Val Ala Thr Pro Pro Pro Ser Ala Gln Pro Trp Lys Gly Asp  
 1170 1175 1180  
 Pro Val Glu Gln Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Lys  
 1185 1190 1195 1200  
 Gly Val Lys Ile Lys Gly Cys Pro Ser Glu Pro Tyr Phe Gly Ser Leu  
 1205 1210 1215  
 Ser Ala Leu Val Ser Gln His Ser Ile Ser Pro Ile Ser Leu Pro Cys  
 1220 1225 1230  
 Cys Leu Arg Ile Pro Ser Lys Asp Pro Leu Glu Glu Thr Pro Glu Ala  
 1235 1240 1245  
 Pro Val Pro Thr Asn Met Ser Thr Ala Ala Asp Leu Leu Arg Gln Gly  
 1250 1255 1260  
 Ala Ala Cys Ser Val Leu Tyr Leu Thr Ser Val Glu Thr Glu Ser Leu  
 1265 1270 1275 1280  
 Thr Gly Pro Gln Ala Val Ala Arg Ala Ser Ser Ala Ala Leu Ser Cys  
 1285 1290 1295  
 Ser Pro Arg Pro Thr Pro Ala Val Val His Phe Lys Val Ser Ala Gln  
 1300 1305 1310  
 Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His  
 1315 1320 1325  
 Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr Asp Pro Gln Asp Arg  
 1330 1335 1340  
 Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys Ile Phe Gly Phe Val  
 1345 1350 1355 1360  
 Ala Lys Lys Pro Gly Ser Pro Trp Glu Asn Val Cys His Leu Phe Ala  
 1365 1370 1375  
 Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile Val Thr Phe Ile Thr  
 1380 1385 1390  
 Lys Val Leu Leu Gly Gln Arg Lys  
 1395 1400

&lt;210&gt; 805

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 805

cccgagagag gtttcaatcc aatgagctgc cagctgaact tactcaacaa gcaaggaccc  
 60

atgggcagac ccaggaaatc tcgccaagta cccattcat gggaggccag cagcacaatt  
 120

agtcatccat ttacttatca agctgttact gtgtgtgcaa gaagcgccag agagatgata  
 180

tcaaggagct cttaccatgg ctggcataga gcggtgatg agtaagttcc gtctgcacaa  
 240

agagtccta agcattcatt cttggtgac attcttggt cagggggtct ccatggcctt  
 300

gtccccctcc tcgggtcacc agttcaggtc gagggggcct atgcttgga gggccacacc  
 360

aatggacctt gccaggacac tcagtcacag gtttcacacc caaagagaag acagcccaac  
 420

ccagaccctc aaaagagagc acctggggga agggagcgtg gaaaccagga ctcagaaaga  
 480

cacaagagaa aaagaagctg tacactgggg aggcttcggt ggtacctgtg cctgccatgt  
 540  
 ctctgaaggc  
 550

<210> 806  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 806  
 Met Ala Gly Ile Glu Arg Leu Met Ser Lys Phe Arg Leu His Lys Glu  
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 Ser Leu Ser Ile His Ser Trp Leu Thr Phe Leu Ala Gln Gly Val Ser  
 20 25 30  
 Met Ala Leu Phe Pro Ser Ser Gly His Gln Phe Arg Ser Arg Gly Pro  
 35 40 45  
 Met Leu Gly Arg Ala Thr Pro Met Asp Leu Ala Arg Thr Leu Ser His  
 50 55 60  
 Arg Phe His Thr Gln Arg Glu Asp Ser Pro Thr Gln Thr Leu Lys Arg  
 65 70 75 80  
 Glu His Leu Gly Glu Gly Ser Val Glu Thr Arg Thr Gln Lys Asp Thr  
 85 90 95  
 Arg Glu Lys Glu Ala Val His Trp Gly Gly Phe Arg Gly Thr Cys Ala  
 100 105 110  
 Cys His Val Ser Glu Gly  
 115

<210> 807  
 <211> 287  
 <212> DNA  
 <213> Homo sapiens

<400> 807  
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 cccgaggtgg gagagcgcg cgcgtggcga ccgtaaacgt atcgttgtcc gatgcgatga  
 120  
 ccgagtgggt cgaagctcag accgggacag gccgtatatac cagcgcgagc gattatatct  
 180  
 gcgccctgat tcgccaggac caggagcgaa gcgacggcct caggcagctt caaacgttga  
 240  
 tcaccgaggg gtccgacagc ggcacgagc cctcgtcgct tgatgac  
 287

<210> 808  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 808  
 Met Ala Val Ala Leu Pro His Trp Gln Asp Ala Lys Phe Leu Ala Met  
 1 5 10 15  
 Ile Ser Arg Gly Gly Arg Ala Arg Gly Met Ala Thr Val Asn Val Ser

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      20      25      30
Leu Ser Asp Ala Met Thr Glu Trp Val Glu Ala Gln Thr Gly Thr Gly
      35      40      45
Arg Tyr Thr Ser Ala Ser Asp Tyr Ile Cys Ala Leu Ile Arg Gln Asp
      50      55      60
Gln Glu Arg Ser Asp Gly Leu Arg Gln Leu Gln Thr Leu Ile Thr Glu
      65      70      75      80
Gly Phe Asp Ser Gly Ile Ser Ala Ser Ser Leu Asp Asp
      85      90

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<210> 809  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

```

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120
gacgcgtggt cgcgtcaaat ggagagacga tcggtgccgc ccttgcccca cgatcctgat
180
ggccccgaga ttcttgacga tgtcaccacc ctgcaccaac aggtaatggg tctgccacgt
240
cacttgggta tccactcagc tggaatgggt ctgacgcgag aaccagtagg acgcatctgc
300
cccattgagc cggctcgaat gtttggtcgc acggggctgc agtgggacaa anaaaactgt
360
gcctggatgg ggttggggaa gtttgatctg cttgggttgg ggatg
405

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<210> 810  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

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<400> 810
Xaa Gly Gly Gly Gly Gly Val Phe Phe Pro Pro Lys Lys Lys Lys
1      5      10      15
Gly Gly Gly Gly Gly Pro Pro Pro Pro Pro Pro Leu Phe Phe Pro Arg
      20      25      30
Gly Val Tyr Ser Gln Gly Gln Gln Asp Ala Trp Ser Arg Gln Met Glu
      35      40      45
Arg Arg Ser Val Pro Pro Leu Pro His Asp Pro Asp Gly Pro Glu Ile
      50      55      60
Pro Asp Asp Val Thr Thr Leu Ala Gln Gln Val Met Gly Leu Pro Arg
      65      70      75      80
His Leu Gly Ile His Ser Ala Gly Met Val Leu Thr Arg Glu Pro Val
      85      90      95
Gly Arg Ile Cys Pro Ile Glu Pro Ala Arg Met Phe Gly Arg Thr Gly
      100      105      110
Leu Gln Trp Asp Lys Xaa Asn Cys Ala Trp Met Gly Leu Gly Lys Phe
      115      120      125
Asp Leu Leu Gly Leu Gly Met

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130

135

<210> 811  
 <211> 642  
 <212> DNA  
 <213> Homo sapiens

<400> 811  
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 cagtgccaat gactgccaat ggcaaagaag agctccaacc aaacaccagg tgcttcatgg  
 120  
 tgggtgacaca ttaacaacac ccgggaagca gtactgccaa cacctagata tgagaaaaag  
 180  
 aaaacaggca cttaaagcga ggctaaccga ctttcaggaa tgataaaggg cagaggaccc  
 240  
 tgtcacctct acccctgcta ctaaaggcgt ggcccacaga gcagcagcac cagcagcaca  
 300  
 taaaatgggg ttaaataatga caggaaaaac aaggtagacag ggaaatgggg tgaagatcaa  
 360  
 gttcgtggta ngtctttctt tcctagaggc tttgggcctg agctcttggg gaaagctctc  
 420  
 caacacctca ggggtgtgct gtccccctgc cctgtgggga tgctctttgt acgggtggct  
 480  
 gactggctcc cactttctct cgtattgttg tcttgtctct tccctcacia ccatcaaggc  
 540  
 tctttccctt aattctataa gacagtacct ctggcttaga aattatatgc cctcctttaa  
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 aaaaacgaaa tgctagagga catagaactt gaggaaaaat tt  
 642

<210> 812  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 812  
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 Pro Val Ser His Pro Tyr Lys Glu His Pro His Arg Ala Gly Glu Gln  
 20 25 30  
 Ala His Pro Glu Val Leu Glu Ser Phe Leu Gln Glu Leu Arg Pro Lys  
 35 40 45  
 Ala Ser Arg Lys Glu Arg Xaa Thr Thr Asn Leu Ile Phe Thr Pro Phe  
 50 55 60  
 Pro Cys His Leu Val Phe Pro Val Ile Phe Asn Pro Ile Leu Cys Ala  
 65 70 75 80  
 Ala Gly Ala Ala Ala Leu Trp Ala Thr Pro Leu Val Ala Gly Val Glu  
 85 90 95  
 Val Thr Gly Ser Ser Ala Leu Tyr His Ser  
 100 105

<210> 813  
 <211> 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 813

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ccccggcgat agtcgcgtgg ggtcatggcg gatgaggggt taagagcgcg tttactgcgg
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cgcccgactc cgatcagccg ttccgaaagg cgacgccgaa gatcatgaca ttctcgcccg
120
gttcgctgac cagcaccggg ccgcccggct gggccgggaa accgtggaac aaggggaagcg
180
ggggcgggcg gcgggggtgac gccttcggcc ccctcgccct cggtcagcgt gcggcgcaat
240
tcggggtcga ggatgatccg cggcccttcg atcttgacca cgatctccag ttgcccgcca
300
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360
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420
ttgaattgcg tgcgcttatt gtcggcaacc agccctcgct tcgcggtttt cgttcgcgc
480
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540
ttgttgccgg atacgcgt
558

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&lt;210&gt; 814

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 814

```

Met Thr Phe Ser Ala Gly Ser Leu Thr Ser Thr Gly Pro Pro Gly Trp
 1             5             10             15
Ala Gly Lys Pro Trp Asn Lys Gly Ser Gly Gly Gly Ala Arg Gly Asp
 20             25             30
Ala Phe Gly Pro Leu Ala Phe Gly Gln Arg Ala Ala Gln Phe Gly Val
 35             40             45
Glu Asp Asp Pro Arg Pro Phe Asp Leu Asp His Asp Leu Gln Leu Pro
 50             55             60
Ala Ile Val Phe Ala Ala Asp Ile Gln Arg Ala Ala Ala His Gln Arg
 65             70             75             80
Leu Ala Gly Asp Gln Gly Glu Val Gln His His Leu Gln Arg Gly Leu
 85             90             95
Gly Gln Arg Leu Arg Phe His Pro Pro Val Glu Leu Arg Ala Leu Ile
100            105            110
Val Gly Asn Gln Pro Leu Val Arg Gly Phe Arg Phe Ala Arg Val Asp
115            120            125
Leu Phe Ala Glu Pro Ala Gly Gly Ala Glu Gly Glu Ala Glu Glu Phe
130            135            140
Glu Leu Val Gly Gly Tyr Ala
145            150

```

&lt;210&gt; 815

&lt;211&gt; 315

<212> DNA  
 <213> Homo sapiens

<400> 815  
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 caaagtggac gatgagaaag ctcacgacgc gcctcacacg gatgggtcgg agcctggaca  
 120  
 agctagcgca ggagaaagcc gagacctcac gtccgaagcg gattcagcaa gtgcacaacc  
 180  
 ttctaccac gctgaggttt ccagtgaagt tactgctacg tccagtatag atgagcaggt  
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 300  
 tgaggccgat acatc  
 315

<210> 816  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 816  
 Met Pro Ser Asp Leu Pro Lys Val Asp Asp Glu Lys Ala His Asp Ala  
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 Pro His Thr Asp Gly Ser Glu Pro Gly Gln Ala Ser Ala Gly Glu Ser  
 20 25 30  
 Arg Asp Leu Thr Ser Glu Ala Asp Ser Ala Ser Ala Gln Pro Ser Thr  
 35 40 45  
 His Ala Glu Val Ser Ser Glu Val Thr Ala Thr Ser Ser Ile Asp Glu  
 50 55 60  
 Gln Val Asp Leu Ile Ala Ala Pro Leu Ser Glu Glu Ser Asn Val Ser  
 65 70 75 80  
 Lys Leu Gly Pro Ser Pro Glu Ala Asp Thr  
 85 90

<210> 817  
 <211> 321  
 <212> DNA  
 <213> Homo sapiens

<400> 817  
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 ctgaaaggaa tcacacaata ttatgctttt gttgaagagg ggcagaaggt tcattgcttg  
 120  
 aatacacttt tctcaaagct tcaaattaat caatccatta tattctgcaa ctctgttaat  
 180  
 agtgttgagc tgctggctaa aaaaataact gaactcgggtt attcatgctt ctacattcat  
 240  
 gctaagatgt tgcaagacca cagaaatcga gtattccatg attgtcgtaa tgggtgcttgc  
 300  
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 321

<210> 818  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 818  
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 1 5 10 15  
 Asp Glu Leu Thr Leu Lys Gly Ile Thr Gln Tyr Tyr Ala Phe Val Glu  
 20 25 30  
 Glu Gly Gln Lys Val His Cys Leu Asn Thr Leu Phe Ser Lys Leu Gln  
 35 40 45  
 Ile Asn Gln Ser Ile Ile Phe Cys Asn Ser Val Asn Ser Val Glu Leu  
 50 55 60  
 Leu Ala Lys Lys Ile Thr Glu Leu Gly Tyr Ser Cys Phe Tyr Ile His  
 65 70 75 80  
 Ala Lys Met Leu Gln Asp His Arg Asn Arg Val Phe His Asp Cys Arg  
 85 90 95  
 Asn Gly Ala Cys Arg Asn Leu Val Cys Thr Asp  
 100 105

<210> 819  
 <211> 3422  
 <212> DNA  
 <213> Homo sapiens

<400> 819  
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 60  
 gagggccctgc agcctggggg gactgccctg gcgcctaaga agaggagccg gaaaggccgg  
 120  
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 180  
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 ggtggaggag gcaagaagcc aaagatggag gagctgggccc tggcctccca ccccccggag  
 300  
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 360  
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 420  
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 480  
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 540  
 cccgccttct cacccttcgt gcgggtggag aagcgagacg cgttcaccac catatgcact  
 600  
 gttgtcaact cccctggaga tgcgcccaag cccacagga agccttctct ctctgcctcc  
 660  
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 720  
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840  
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900  
cccaaaaaga agccaaaact caaggagaag gtgcggccag aaggcacctg tgaggaggcc  
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1380  
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1560  
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tcccgatcg tggatccggc cgcctagggc tcagacttgc gggccgggt tgggaggaaa  
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1740  
aggggccagg ctgctggagg gggagccgc ggagcggcca gactccccg ggcgctcagc  
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ctccggcgag ggtgggagac ggctttgtcc tggggacact ttccctctgg aatctcaaga  
1860  
cgacgtggca cacattccac gtgggtgctg ccgccacccc agtcggtcgt ggcgtgcagc  
1920  
tgggagccct gggcttggg gtgggggtcg aaacagtact ggaagaggcg gagggcggct  
1980  
cctagctccg tggactaggc gggggagaaa ggaagccttt ctgagagcgg gctaggccgg  
2040  
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2100  
cccagccttt gccagatctc tcgtgcggtt cgggcaaagc cggggtagac ctgggctatg  
2160  
ctcagttagg ggttgcggga tccccagtg tggcgggac tgggacaccc tttggcctct  
2220  
gtttgtcccc tttccagtc tccacccac ccctggagcc cagcctggga gcgcaaaacc  
2280  
caagaagcgg ccagaacgca cctccggctc cggcgagcgc gcgaccgtt tgaccacca  
2340  
gggaccgccg cgcctactct gcacgggagc agggacagcg ctagatttcg tgtacaaaac  
2400

ctgtgtaccc ctctatatat atgttacata gaatgtatat atgttgggaa catgctcgct  
 2460  
 tctcccgtgt gtcgcccgcg tgcgtcgtgc gcccgcaca gagccccaac cgggcctttg  
 2520  
 ccgggtaagg ggctaccgcg acgccacttg tccacgcagc caccaccggc ccgggccagt  
 2580  
 cctgccagt ccgtccgcct gtccgtccgt gtcctcagct ctgtccacgc ttcgataggc  
 2640  
 ctgacgcagc ccccagccca ggccgcgcct agcaacttcc tgtacatatg actgtaaaat  
 2700  
 ggtaaacgtg tgtattatat ctggcctcgt tatatagtgt atatatatgt atacatatac  
 2760  
 atatataaa tatatatgaa gactgtaaat gttaagacga ctagtgttct tattagtata  
 2820  
 ttgcttcaca ctgaagattg tgtgtatcga gctgtttcta aaagatgttt attttcctta  
 2880  
 agagtaaaaa acagtcattg cattcagaaa aaaaaaaaaa aagtcaataa agatacaacg  
 2940  
 attgttttgg aaaatctgca gcccgtagat tccgaccaga ttcagctggg agccggggcca  
 3000  
 ggcttttaggt tggggaatgg gaatgaaggg aggggctggg ggggggggca tgaatggagt  
 3060  
 cagggagtcg gcctttcaca gaacaggaaa cctccccgc cctgtgccc cctctccagt  
 3120  
 gtggcggcag gtcgggaggg aggaggcttc tttgctgtga aatgaccagg ggccgggatg  
 3180  
 ggggaggtga gacgtgccag acttcttgca gggagaccca agctgtagct cctgtcacac  
 3240  
 aacaggtcct ggaagtcagt ccatectccc gtgccacca gggaccttgt gtccggaggg  
 3300  
 ggaggggaag cctttgccta ggtgctgggg gagggcccaa gcactctcac tagtcagcac  
 3360  
 atccatcagc tgaagacaca aaaccagat tataaataat ttcattttta attctctgta  
 3420  
 ca  
 3422

<210> 820  
 <211> 494  
 <212> PRT  
 <213> Homo sapiens

<400> 820  
 Met Asn Ser Lys Lys Leu Ser Ser Thr Asp Cys Phe Lys Thr Glu Ala  
 1 5 10 15  
 Phe Thr Ser Pro Glu Ala Leu Gln Pro Gly Gly Thr Ala Leu Ala Pro  
 20 25 30  
 Lys Lys Arg Ser Arg Lys Gly Arg Ala Gly Ala His Gly Leu Ser Lys  
 35 40 45  
 Gly Pro Leu Glu Lys Arg Pro Tyr Leu Gly Pro Ala Leu Pro Leu Thr  
 50 55 60  
 Pro Arg Asp Arg Ala Ser Gly Thr Gln Gly Ala Ser Glu Asp Asn Ser  
 65 70 75 80  
 Gly Gly Gly Gly Lys Lys Pro Lys Met Glu Glu Leu Gly Leu Ala Ser

	85								90						95			
His	Pro	Pro	Glu	Gly	Arg	Pro	Cys	Gln	Pro	Gln	Thr	Arg	Ala	Gln	Lys			
			100					105					110					
Gln	Pro	Gly	His	Thr	Asn	Tyr	Ser	Ser	Tyr	Ser	Lys	Arg	Lys	Arg	Leu			
			115				120					125						
Thr	Arg	Gly	Arg	Ala	Lys	Asn	Thr	Thr	Ser	Ser	Pro	Cys	Lys	Gly	Arg			
			130			135					140							
Ala	Lys	Arg	Arg	Arg	Gln	Gln	Gln	Val	Leu	Pro	Leu	Asp	Pro	Ala	Glu			
145					150					155					160			
Pro	Glu	Ile	Arg	Leu	Lys	Tyr	Ile	Ser	Ser	Cys	Lys	Arg	Leu	Arg	Ser			
				165					170					175				
Asp	Ser	Arg	Thr	Pro	Ala	Phe	Ser	Pro	Phe	Val	Arg	Val	Glu	Lys	Arg			
			180					185					190					
Asp	Ala	Phe	Thr	Thr	Ile	Cys	Thr	Val	Val	Asn	Ser	Pro	Gly	Asp	Ala			
			195				200					205						
Pro	Lys	Pro	His	Arg	Lys	Pro	Ser	Ser	Ser	Ala	Ser	Ser	Ser	Ser	Ser			
	210					215					220							
Ser	Ser	Ser	Phe	Ser	Leu	Asp	Ala	Ala	Gly	Ala	Ser	Leu	Ala	Thr	Leu			
225					230					235					240			
Pro	Gly	Gly	Ser	Ile	Leu	Gln	Pro	Arg	Pro	Ser	Leu	Pro	Leu	Ser	Ser			
				245					250					255				
Thr	Met	His	Leu	Gly	Pro	Val	Val	Ser	Lys	Ala	Leu	Ser	Thr	Ser	Cys			
			260					265					270					
Leu	Val	Cys	Cys	Leu	Cys	Gln	Asn	Pro	Ala	Asn	Phe	Lys	Asp	Leu	Gly			
		275				280					285							
Asp	Leu	Cys	Gly	Pro	Tyr	Tyr	Pro	Glu	His	Cys	Leu	Pro	Lys	Lys	Lys			
	290					295					300							
Pro	Lys	Leu	Lys	Glu	Lys	Val	Arg	Pro	Glu	Gly	Thr	Cys	Glu	Glu	Ala			
305					310					315					320			
Ser	Leu	Pro	Leu	Glu	Arg	Thr	Leu	Lys	Gly	Pro	Glu	Cys	Ala	Ala	Ala			
				325					330					335				
Ala	Thr	Ala	Gly	Lys	Pro	Pro	Arg	Pro	Asp	Gly	Pro	Ala	Asp	Pro	Ala			
			340					345				350						
Lys	Gln	Gly	Pro	Leu	Arg	Thr	Ser	Ala	Arg	Gly	Leu	Ser	Arg	Arg	Leu			
		355					360				365							
Gln	Ser	Cys	Tyr	Cys	Cys	Asp	Gly	Arg	Glu	Asp	Gly	Gly	Glu	Glu	Ala			
	370					375					380							
Ala	Pro	Ala	Asp	Lys	Gly	Arg	Lys	His	Glu	Cys	Ser	Lys	Glu	Ala	Pro			
385					390					395					400			
Ala	Glu	Pro	Gly	Gly	Glu	Ala	Gln	Glu	His	Trp	Val	His	Glu	Ala	Cys			
			405						410					415				
Ala	Val	Trp	Thr	Gly	Gly	Val	Tyr	Leu	Val	Ala	Gly	Lys	Leu	Phe	Gly			
			420					425				430						
Leu	Gln																	

<210> 821

<211> 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 821

acgcgtcccg tcacctgcgg tatggaccaa gtgagttgtg tgctcgacaa tgggttcgcc  
 60  
 gccatcatgg atgtgccggg tttcaactat cgcgcccatc gttacaccga agcctatcgg  
 120  
 cgtttgccgc aaaatgtggg gctaggttcg gaaacgacct cgacgggtgag cagccgtggg  
 180  
 gtctacaagt ttctgttgtt gctgaagtcc gatgccatct atcccgacca tcagtcgtca  
 240  
 ggctacgaca cagagtattg ttctgtggcg aacacccccg atgtcgattt cgccttcgcc  
 300  
 gaagactatc cctggacgat ggggcagttt gtctggacgg gcttcgacta cctcggtgaa  
 360  
 ccttcgcctt acgacaccga tgccctggccc tctcagcct cctcttcgg cattgtcgac  
 420

&lt;210&gt; 822

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 822

Met Asp Gln Val Ser Cys Val Leu Asp Asn Gly Phe Ala Ala Ile Met  
 1 5 10 15  
 Asp Val Pro Gly Phe Asn Tyr Arg Ala His Arg Tyr Thr Glu Ala Tyr  
 20 25 30  
 Arg Arg Leu Pro Gln Asn Val Val Leu Gly Ser Glu Thr Thr Ser Thr  
 35 40 45  
 Val Ser Ser Arg Gly Val Tyr Lys Phe Pro Val Val Leu Lys Ser Asp  
 50 55 60  
 Ala Ile Tyr Pro Asp His Gln Ser Ser Gly Tyr Asp Thr Glu Tyr Cys  
 65 70 75 80  
 Ser Trp Ser Asn Thr Pro Asp Val Asp Phe Ala Leu Ala Glu Asp Tyr  
 85 90 95  
 Pro Trp Thr Met Gly Gln Phe Val Trp Thr Gly Phe Asp Tyr Leu Gly  
 100 105 110  
 Glu Pro Ser Pro Tyr Asp Thr Asp Ala Trp Pro Ser His Ala Ser Leu  
 115 120 125  
 Phe Gly Ile Val Asp  
 130

&lt;210&gt; 823

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 823

tctagattct tgggcagccg agccctctt gaattctca gcctaccatc atgatcaaca  
 60  
 cctcccatgt tccgtccatg aatgaccgca ctgacagcac tggagagatt taatgggtca  
 120



ccaattgagg cagtgaaggc actcatggca ctgagagctg gaatggggct gatctgagtt  
 180  
 gtactgttga ctgcagtggg gatgacaacc tgcattcctt tgctggctgc atcgacaact  
 240  
 gctttgtaaa tggcatctac ggaagcatca cctgggccac ccacaacgag gccatccttc  
 300  
 acctgttgac caagagatgg gtcaatcctc ggttgcaact cacaaggtgt atcttgaaaa  
 360  
 ggtggaagtg tagtgtttgg attctcagga agtgctgtga gccaggtg agtgcttatt  
 420  
 cttttgttta ggagagctgc atcttcctgc attctcacct gaaagttctg aaacagacaa  
 480  
 gccatggggg tattgttagc tgggcaagga attgtggact gtccttgga cgcctggaga  
 540  
 ttctggtacc  
 550

<210> 824  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 824  
 Met Ala Cys Leu Phe Gln Asn Phe Gln Val Arg Met Gln Glu Asp Ala  
 1 5 10 15  
 Ala Leu Leu Asn Lys Arg Ile Ser Thr Gln Pro Gly Leu Thr Ala Leu  
 20 25 30  
 Pro Glu Asn Pro Asn Thr Thr Leu Pro Pro Phe Gln Asp Thr Pro Cys  
 35 40 45  
 Glu Leu Gln Pro Arg Ile Asp Pro Ser Leu Gly Gln Gln Val Lys Asp  
 50 55 60  
 Gly Leu Val Val Gly Gly Pro Gly Asp Ala Ser Val Asp Ala Ile Tyr  
 65 70 75 80  
 Lys Ala Val Val Asp Ala Ala Ser Lys Gly Met Gln Val Val Ile Thr  
 85 90 95  
 Thr Ala Val Asn Ser Thr Thr Gln Ile Ser Pro Ile Pro Ala Leu Ser  
 100 105 110  
 Ala Met Ser Ala Phe Thr Ala Ser Ile Gly Asp Pro Leu Asn Leu Ser  
 115 120 125  
 Ser Ala Val Ser Ala Val Ile His Gly Arg Asn Met Gly Gly Val Asp  
 130 135 140  
 His Asp Gly Arg Leu Arg Asn Ser Arg Gly Ala Arg Leu Pro Lys Asn  
 145 150 155 160  
 Leu

<210> 825  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

<400> 825  
 gcgtttgcga ccggccgtaa cccgcagaat gcggcgggtg gttgcactga gggatatttg  
 60

cagttgctgg atgagcgcgga gatgcgcggc gtgctcggcc acgagctgat gcacgtgtac  
 120  
 aaccgcgata tcctcacctc ttccggtggcg gcgggtatcg cctccatcat cggtagcatt  
 180  
 gcgcagattc tttcgtttgg cgcgatgttc ggtggatcca accgcgatgg tgaacgttcc  
 240  
 aaccccctcg ccatgttcgt ggttgetatg ctggctccca ttgctactca ggtcatccag  
 300  
 atggctatta gccgcacccg tgaattc  
 327

<210> 826  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 826  
 Ala Phe Ala Thr Gly Arg Asn Pro Gln Asn Ala Ala Val Cys Cys Thr  
 1 5 10 15  
 Glu Gly Ile Leu Gln Leu Leu Asp Glu Arg Glu Met Arg Gly Val Leu  
 20 25 30  
 Gly His Glu Leu Met His Val Tyr Asn Arg Asp Ile Leu Thr Ser Ser  
 35 40 45  
 Val Ala Ala Gly Ile Ala Ser Ile Ile Gly Thr Ile Ala Gln Ile Leu  
 50 55 60  
 Ser Phe Gly Ala Met Phe Gly Gly Ser Asn Arg Asp Gly Glu Arg Ser  
 65 70 75 80  
 Asn Pro Leu Ala Met Phe Val Val Ala Met Leu Ala Pro Ile Ala Thr  
 85 90 95  
 Gln Val Ile Gln Met Ala Ile Ser Arg Thr Arg Glu Phe  
 100 105

<210> 827  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 827  
 nacgcgtacg tcaatatgca tcgtccagtc gttatcgcaa cgccgaaatc gatgctgcgc  
 60  
 aacaagatgg cgacctcgga tcccgaagag ttcaccaccg gtaggtggcg tcctgttcta  
 120  
 cccgacccat cgatcaccca cccgacggcc gttacgagga ttatcttctg ctctggcaag  
 180  
 gcgcggtggg agctggtcaa gcaacgtaag gccgccagtc ttgacggaca gctcgccatc  
 240  
 atcccgatgg agcgtctcta cccgctacca gtcgacgagt tggctgaggt ttttgcgcct  
 300  
 tacaccaacg tcacggatgt ccgctgggtc caagaagagc cagagaacca gggcgccctg  
 360  
 tactacatgc tgaccacct gccccaggcc atgtcggaga agctgccagg attctttgat  
 420  
 gggttagtcg gcatcacccg cccaccgtcc tcagctccgt cggtgggaca gcacagcgtc  
 480

cacatccgtg aagagcagga gttactcgag aaggctatag cctgagcgac ctga  
534

<210> 828

<211> 174

<212> PRT

<213> Homo sapiens

<400> 828

Xaa	Ala	Tyr	Val	Asn	Met	His	Arg	Pro	Val	Val	Ile	Ala	Thr	Pro	Lys
1				5					10					15	
Ser	Met	Leu	Arg	Asn	Lys	Met	Ala	Thr	Ser	Asp	Pro	Glu	Glu	Phe	Thr
			20					25				30			
Thr	Gly	Arg	Trp	Arg	Pro	Val	Leu	Pro	Asp	Pro	Ser	Ile	Thr	Asp	Pro
		35					40					45			
Thr	Ala	Val	Thr	Arg	Ile	Ile	Leu	Cys	Ser	Gly	Lys	Ala	Arg	Trp	Glu
	50					55					60				
Leu	Val	Lys	Gln	Arg	Lys	Ala	Ala	Ser	Leu	Asp	Gly	Gln	Leu	Ala	Ile
65					70					75				80	
Ile	Pro	Met	Glu	Arg	Leu	Tyr	Pro	Leu	Pro	Val	Asp	Glu	Leu	Ala	Glu
				85					90					95	
Val	Phe	Ala	Pro	Tyr	Thr	Asn	Val	Thr	Asp	Val	Arg	Trp	Val	Gln	Glu
			100					105						110	
Glu	Pro	Glu	Asn	Gln	Gly	Ala	Trp	Tyr	Tyr	Met	Leu	Thr	His	Leu	Pro
			115				120					125			
Gln	Ala	Met	Ser	Glu	Lys	Leu	Pro	Gly	Phe	Phe	Asp	Gly	Leu	Val	Gly
			130			135					140				
Ile	Thr	Arg	Pro	Pro	Ser	Ser	Ala	Pro	Ser	Val	Gly	Gln	His	Ser	Val
145					150					155					160
His	Ile	Arg	Glu	Glu	Gln	Glu	Leu	Leu	Glu	Lys	Ala	Ile	Ala		
				165					170						

<210> 829

<211> 492

<212> DNA

<213> Homo sapiens

<400> 829

nagtggccgg gtggccggcg ggtgccagcc gccatggagg ccgtgccccg catgcccattg  
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atctggctgg acctgaagga ggccgggtgac ttccacttcc agccagctgt gaagaagttt  
120  
gtcctgaaga attatggaga gaaccagaa gcctacaatg aagaactgaa gaagctggag  
180  
ttgctcagac agaattgctgt ccgtgtccca cgagactttg agggctgtag tgtcctccgc  
240  
aagtacctcg gccagcttca ttacctgcag agtcgggtcc ccatgggctc gggccaggag  
300  
gccgctgtcc ctgtcacatg gacagagatc ttctcaggca agtctgtggc ccatgaggac  
360  
atcaagtacg agcaggcctg tattttctcc aacnttggag cgctgcactc catgtctggg  
420  
gccatggaca agcgggtgtc tgaggagggc atgaaggctc cctgtaccca ttccagtcg  
480

gcagccggcg cc  
492

<210> 830  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 830  
Xaa Trp Pro Gly Gly Arg Arg Val Pro Ala Ala Met Glu Ala Val Pro  
1 5 10 15  
Arg Met Pro Met Ile Trp Leu Asp Leu Lys Glu Ala Gly Asp Phe His  
20 25 30  
Phe Gln Pro Ala Val Lys Lys Phe Val Leu Lys Asn Tyr Gly Glu Asn  
35 40 45  
Pro Glu Ala Tyr Asn Glu Glu Leu Lys Lys Leu Glu Leu Leu Arg Gln  
50 55 60  
Asn Ala Val Arg Val Pro Arg Asp Phe Glu Gly Cys Ser Val Leu Arg  
65 70 75 80  
Lys Tyr Leu Gly Gln Leu His Tyr Leu Gln Ser Arg Val Pro Met Gly  
85 90 95  
Ser Gly Gln Glu Ala Ala Val Pro Val Thr Trp Thr Glu Ile Phe Ser  
100 105 110  
Gly Lys Ser Val Ala His Glu Asp Ile Lys Tyr Glu Gln Ala Cys Ile  
115 120 125  
Phe Ser Asn Xaa Gly Ala Leu His Ser Met Leu Gly Ala Met Asp Lys  
130 135 140  
Arg Val Ser Glu Glu Gly Met Lys Val Ser Cys Thr His Phe Gln Cys  
145 150 155 160  
Ala Ala Gly Ala

<210> 831  
<211> 303  
<212> DNA  
<213> Homo sapiens

<400> 831  
gcgttgctgc ggcgtggcga gaccatgacg gcggagaatc agcgtgccaa tgtgcgcac  
60  
gccgcaaacc acatcaagga ggttgcggtc gatcacgagg tcgttgtagc ccatggtaat  
120  
ggccccagg taggtctgtt ggctctgcaa tcgacagcct acgaggaagt cggtatctat  
180  
ccgctggatg tcctgggcgc agagtcacag gccatgatcg gctacatgat cgagcaggaa  
240  
ctcggcaatg tgatgcctca ggatcagcag atcgtcacca tgatcacgat gacagtcgctc  
300  
gac  
303

<210> 832  
<211> 101  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 832

Ala Leu Leu Arg Arg Gly Glu Thr Met Thr Ala Glu Asn Gln Arg Ala  
 1 5 10 15  
 Asn Val Arg Ile Ala Ala Asn His Ile Lys Glu Val Ala Val Asp His  
 20 25 30  
 Glu Val Val Val Ala His Gly Asn Gly Pro Gln Val Gly Leu Leu Ala  
 35 40 45  
 Leu Gln Ser Thr Ala Tyr Glu Glu Val Gly Ile Tyr Pro Leu Asp Val  
 50 55 60  
 Leu Gly Ala Glu Ser Gln Ala Met Ile Gly Tyr Met Ile Glu Gln Glu  
 65 70 75 80  
 Leu Gly Asn Val Met Pro Gln Asp Gln Gln Ile Val Thr Met Ile Thr  
 85 90 95  
 Met Thr Val Val Asp  
 100

&lt;210&gt; 833

&lt;211&gt; 466

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 833

nn gatccgcg cgatcgacga ggcgggtgcg tgatgttgac agcgaaaatg cgcagccggc  
 60  
 catttgacga gggctgaaaa cgtcttctac cggctctgctg tgccgcctgg tgcagcaaa  
 120  
 cgacgccatg atcgctccagt gggatcgaat ttgttctgctg gcgctggggg attcagttgc  
 180  
 ggattccacc aggccgggtg gcatgttgctg gcggcggttg agcacgacgt gtcggcgctc  
 240  
 ctgacctatg tcatgaatct cgctcggccc ggctcaaga ttcacatcga ccccgagcac  
 300  
 ccggagctgg gcccaagacc accgcgaacc aagaagaaga gcggcggcgc agtgccgttc  
 360  
 gatgcgcgatg tcggaactgg gtggatcgcc agcgagcccc ccgacgatcc cggctgcgaa  
 420  
 cacttctacg tgtacgacgt caagaacctc agcgcgagc ggatcc  
 466

&lt;210&gt; 834

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 834

Gln Arg Lys Cys Ala Ala Gly His Leu Thr Arg Ala Glu Asn Val Phe  
 1 5 10 15  
 Tyr Arg Ser Ala Val Pro Pro Gly Val Ser Lys Arg Arg His Asp Arg  
 20 25 30  
 Pro Val Gly Ile Asp Leu Phe Cys Gly Ala Gly Gly Phe Ser Cys Gly  
 35 40 45  
 Phe His Gln Ala Gly Trp His Val Ala Ala Ala Val Glu His Asp Val

```

      50              55              60
Ser Ala Ser Leu Thr Tyr Val Met Asn Leu Ala Arg Pro Gly Val Lys
65              70              75              80
Ile His Ile Asp Pro Glu His Pro Glu Leu Gly Pro Arg Pro Pro Arg
      85              90              95
Thr Lys Lys Lys Ser Gly Gly Ala Val Pro Phe Asp Ala His Val Gly
      100              105              110
Thr Gly Trp Ile Ala Ser Glu Pro Ala Asp Asp Pro Gly Cys Glu His
      115              120              125
Phe Tyr Val Tyr Asp Val Lys Asn Leu Ser Gly Glu Arg Ile
      130              135              140

```

<210> 835  
 <211> 482  
 <212> DNA  
 <213> Homo sapiens

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<400> 835
acgcgtgaag ggattttgat caccagaac aaccacctgt ctttttagat caagaagcag
60
aagctcagag caaagaacat cacaccagt ccctcagtga ttgaagcagt gattgagtca
120
cagaataaat ctggaactca ggtcttctga tctttgctcc agatgtaga gacaaaacta
180
aaagtaaaat accaagttaa atcaaagcat cacgattgag ccagaacat gaaaaagaac
240
ttcctggccc acttgagaaa ctgttaaacc ggacatacct ttggggactt cttcccttct
300
ctggaataag attgatgttt ccatgctgtg aaagacgatg atgttccttc tcccagattc
360
ctgctgtctt caaaaggcct agcaaaaacc actgctgctg ggtgcagttg agaaagggaa
420
tgaagaacaa tcccatggcc atgcaggcac tcctccctc cactctctg cccttcacgc
480
gt
482

```

<210> 836  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

```

<400> 836
Met Ala Met Gly Leu Phe Phe Ile Pro Phe Leu Asn Cys Thr Gln Gln
1      5      10      15
Gln Trp Phe Leu Leu Gly Leu Leu Lys Thr Ala Gly Ile Trp Glu Lys
      20      25      30
Glu His His Arg Leu Ser Gln His Gly Asn Ile Asn Leu Ile Pro Glu
      35      40      45
Lys Gly Arg Ser Pro Gln Arg Tyr Val Arg Phe Asn Ser Phe Ser Ser
      50      55      60
Gly Pro Gly Ser Ser Phe Ser Cys Ser Gly Leu Asn Arg Asp Ala Leu
65      70      75      80
Ile Ser Leu Gly Ile Leu Leu Leu Val Leu Ser Leu Thr Ser Gly Ala

```

```

      85              90              95
Lys Ile Arg Arg Pro Glu Phe Gln Ile Tyr Ser Val Thr Gln Ser Leu
      100              105              110
Leu Gln Ser Leu Arg Asp Val Val
      115              120

```

<210> 837  
 <211> 509  
 <212> DNA  
 <213> Homo sapiens

```

<400> 837
acgcgtggac ccccgttctg cccgcctttg cagtcacgc cctccctgaa gtcaccgctg
60
cagaaatacg caggcactga cctgggggta cagccaggca agggagagac gaggggctca
120
ctctgcacca gccaaaggcct gtgtcctggc atggctcccc caggaagcga ggatggcggt
180
gcctggcggt cgagccctc ttatcctggg gaatgctggg gggcgctcct gagcagacct
240
gcctgctgcc cctgctggct ggcactgcc ccccccggg gaaaggttg gtggtcccc
300
caggggaact caaagcaggg gagcccttg agggcccaag tccctggaat atcttgcg
360
tcagatggcc cccctcgaac accctcacac gggggggcgc cgcggtggga ggtgaccag
420
cagccactct tacttggcga agacttttct cccaatgcga gcgcgggttg tatcagcctg
480
agccttcagg ttggtgaggc tggggtacc
509

```

<210> 838  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

```

<400> 838
Met Ala Pro Pro Gly Ser Glu Asp Gly Gly Ala Trp Arg Ser Ser Pro
  1      5      10      15
Ser Tyr Pro Gly Glu Cys Trp Gly Ala Phe Leu Ser Arg Pro Ala Cys
      20      25      30
Cys Pro Cys Trp Leu Ala Leu Pro Leu Pro Arg Gly Lys Val Gly Trp
      35      40      45
Ser Pro Gln Gly Asn Ser Lys Gln Gly Ser Pro Trp Arg Pro Gln Val
      50      55      60
Pro Gly Ile Ser Trp Arg Ser Asp Gly Pro Pro Arg Thr Pro Ser His
      65      70      75      80
Gly Gly Ala Ala Arg Trp Glu Val Thr Gln Gln Pro Leu Leu Leu Gly
      85      90      95
Glu Asp Phe Ser Pro Asn Ala Ser Ala Gly Gly Ile Ser Leu Ser Leu
      100      105      110
Gln Val Gly Glu Ala Gly Val
      115

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 <211> 347  
 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
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 Gly Arg Leu Gln Gly Arg Leu Asp Met Pro Leu Asp Glu Val Gly Arg  
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 Arg Gln Ala Leu Thr Val Ala Gln Val Ile Ala Glu Met Glu Pro Asp  
 35 40 45  
 Ala Ile Met Ala Ser Pro Leu Gln Arg Ala Arg Asp Thr Ala Gln Ala  
 50 55 60  
 Ile Gly Ala Cys Ala Gly Leu Gly Val Gln Leu Asp Asp Arg Leu Ile  
 65 70 75 80  
 Glu Ile Asp Val Gly Arg Trp Ser Gly Gln Arg Ala Ala Asp Leu Arg  
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 Arg Val Gly  
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 180